BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAI'I

In the Matter of the Application)
of))) Docket No. 2009-0048
MOLOKAI PUBLIC UTILITIES, INC.)
For review and approval of rate increases; revised rate schedules; and revised rules.))))

MOLOKAI PUBLIC UTILITIES, INC.'S RESPONSES TO WEST MOLOKAI ASSOCIATION'S SUPPLEMENTAL INFORMATION REQUESTS

and

CERTIFICATE OF SERVICE

PUBLIC UTILITIES

MORIHARA LAU & FONG LLP

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Attorneys for MOLOKAI PUBLIC UTILITIES, INC.

OF THE STATE OF HAWAI'I

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MOLOKAI PUBLIC UTILITIES, INC.) DOCKET NO. 2009-0048
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COMES NOW, MOLOKAI PUBLIC UTILITIES, INC., by and through its attorneys, Morihara Lau & Fong LLP, hereby submits its Responses to West Molokai Association's Supplemental Information Requests consistent with the Stipulated Regulatory Schedule (Exhibit "A") contained in the Stipulated Prehearing Order, filed on November 6, 2009.

DATED: Honolulu, Hawaii, December 21, 2009.

YVONNE Y. 120, ESQ.

Morihara Lau & Fong LLP Attorneys for MOLOKAI PUBLIC UTILITIES, INC.

DOCKET NO. 2009-0048

WMA-SIR-101 Re: Response to WMA-IR-102

a. Please provide a tabulation of the measured (metered) volume of water delivered to WOM at the Kualapuu tap and at the Maunaloa Reservoir connection, on a monthly basis, for the years 2004 through 2009.

RESPONSE:

See Attachment WMA-IR-119 which shows the monthly water delivered to Maunaloa from July 2007 through October 2009. Data for September 2005 to June 2007 is shown on Attachment WMA-SIR-101. The Company cannot locate the readings prior to September 2005. See Attachment CA-IR-35g filed in Docket No. 2009-0049 for water delivered at the Kualapuu tap from March 2006 to August 2009. Data for the prior months is not available because the meter was broken. Usage for September and October at the Kualapuu tap was 2,040,000 gallons and 1,768,000 gallons respectively.

SPONSOR: Robert O'Brien

ATTACHMENT WMA-SIR-101

Attachment WMA SIR 101

MOLOKAI PUBLIC UTILITIES

Docket No. 2009-0048

Mauanaloa Total Usage

Line #	Month	Maunaloa Reading	Moana Makani Reading	Total Reading at Maunaloa	Total for Moana Makani Only	Total Mauanaloa Only
1	9/5/2005	740494	42100			
2	Sep-05	743069	42650	2,575	550	2,025
3	Oct-05	745969	43303	2,900	653	2,247
4	Nov-05	748620	44135	2,651	832	1,819
5	Dec-05	751203	44979	2,583	844	1,739
6	Jan-06	754503	46035	3,300	1,056	2,244
7	Feb-06	757080	46900	2,577	865	1,712
8	Mar-06	759605	47518	2,525	618	1,907
9	Apr-06	762322	48373	2,717	855	1,862
10	May-06	765334	49268	3,012	895	2,117
11	Jun-06	768697	50348	3,363	1,080	2,283
12	Jul-06	772209	51385	3,512	1,037	2,475
13	Aug-06	776000	52307	3,791	922	2,869
14	Sep-06	779672	53615	3,672	1,308	2,364
15	Oct-06	782858	54433	3,186	818	2,368
16	Nov-06	785675	55235	2,817	802	2,015
17	Dec-06	788883	56414	3,208	1,179	2,029
18	Jan-07	792446	57626	3,563	1,212	2,351
19	Feb-07	795781	58694	3,335	1,068	2,267
20	Mar-07	800000	59827	4,219	1,133	3,086
21	Apr-07	804581	61060	4,581	1,233	3,348
22	May-07	810405	62680	5,824	1,620	4,204
23	Jun-07	814211	63935	3,806	1,255	2,551

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WMA-SIR-102 Re: Response to WMA-IR-103

a. In prior documentation, the capacity of the Maunaloa Reservoir has been specified as 3.0 MG. Please advise as to the actual capacity of this storage reservoir, as well as the capacity of the reservoir normally utilized.

RESPONSE: The current actual capacity, limited by the liner installed, is

approximately 2.0 MG. The capacity normally utilized is

2.0 MG.

SPONSOR: Robert O'Brien

DOCKET NO. 2009-0048

WMA-SIR-103 Re: Response to WMA-IR-105

a. In PUC Docket No. 2002-0371, MPU's response to CA-IR-6 states that Waiola O Molokai made arrangements with the Company to purchase up to 100,000 gallons per day of well water from Well #17 as a source of supply for WOM's customer base in the Kualapuu area. Said arrangements appear to have been made in the early 1990's time frame. Please provide a copy of these arrangements and confirm that they are still in effect. If superseded, please provide a copy of the contractual agreement or other understanding covering the bulk sales of Well #17 water to WOM.

RESPONSE:

See Attachment WMA-SIR-103a. Currently, the Company is providing water to WOM at the Kualapuu Tap under the tariff approved by the Commission in Docket No. 02-0371 as modified by Docket No. 2008-0115.

b. How does the Company intend to apply the proposed fuel adjustment cost factor to the Kualapuu bulk sales transactions with WOM?

RESPONSE:

The Company intends to apply the same procedure used for all customers which would use the water usage billed monthly.

SPONSOR:

Robert O'Brien

ATTACHMENT WMA-SIR-103a





Kaluakoi Resort

September 12, 1985

Molokai Ranch, Ltd. 700 Richards Street, Suite 1204 Honoluly, Hawaii 96813

Re: Sale of Water_at Kualapu'u

Gentlemen:

This letter will confirm the terms on which Kaluakoi Corporation ("Kaluakoi") will sell water to Molokai Ranch, Ltd. ("Molokai Ranch") at Kualapu'u, on the Island of Molokai.

- 1. Kaluakoi shall provide up to 100,000 gallons of water per day to Molokai Ranch at a location (hereafter called the "Location") to be mutually agreed upon in the vicinity of Kualapu'u on the Island of Molokai. Molokai Ranch shall have the obligation to notify Kaluakoi at least forty-eight (48) hours in advance how much water it desires to purchase, if any, and after receipt of such notice Kaluakoi shall be obligated to sell such quantity to Molokai Ranch, but only out of such water as may be available, if any, at Kualapu'u. Kaluakoi will have no liability if water is unavailable at Kualap'u for any reason, including without limitation a breakdown of the pump or other facilities.
- 2. The water being sold hereunder will be metered at a meter to be installed at the Location at the expense of Molokai Ranch, which meter will measure the quantity of water which is pumped at Kualapu'u and purchased by Molokai Ranch. Molokai Ranch shall also bear the expense, if any, of making any connection to the water pipeline at the Location.
- 3. Kaluakoi shall have the responsibility for reading the water meter which measures the quantity of water produced at Kualapu'u and purchased by Molokai Ranch and maintaining a record of such quantity. Every two months Kaluakoi shall send a bill which will (a) represent the quantity of water produced at Kualapu'u and purchased by Molokai Ranch as measured by the meter and (b) calculate the purchase price for the water produced and purchased by Molokai Ranch during the previous two month period.
- 4. Molokai Ranch shall pay seventy-five cents (75¢) per thousand gallons for the water which it purchases. Payment shall be made bi-monthly, within thirty (30) days after the date of the bill for such water.
- 5. Either Kaluakoi or Molokai Ranch may terminate the agreement by giving the other party at least thirty days prior written notice. Upon termination, Kaluakoi shall have the right, but not the obligation, to remove the water meter which installed pursuant to paragraph 2 above.

Molokai Ranch, Ltd. Page 2

- 6. It is understood and agreed that Kaluakoi makes no representations or warranties whatsoever as to the quality or quantity of water produced at Kualapu'u and it is acknowledged by both parties that the water being sold may be mixed with, and transported through a pipeline system which contains, water which is not potable. The water being sold hereunder is to be sold "AS 1S". ALL WARRANTIES EXPRESS AND IMPLIED ARE HEREBY DISCLAIMED, INCLUDING ALL WARRANTIES OF MERCHANTABILTY AND WARRANTIES OF FITNESS FOR ANY PARTICULAR PURPOSE. Molokai Ranch shall indemnify, defend and hold Kaluakoi harmless from and against all claims which may be made against Kaluakoi arising out of any and all uses of the water being sold hereunder and shall reimburse Kaluakoi for any and all expenses it may incur, including without limitation attorney's fees and court costs, in responding to any such claims.
- 7. It is understood that in lieu of payment of the above purchase price, Molokai Ranch shall have the option of replacing in whole or in part the water provided to it hereunder by pumping into the same pipeline, at the location or at other locations, the same amount of water which was provided by Kaluakoi. The time within which to replace such water will be the same time as for making payment of the purchase price. Such replacement water may be pumped into the same pipeline at locations other than at Kualapuu.

If this letter accurately sets forth our entire and complete agreement with respect to the purchase and sale of water at Kualapu'u, then please sign and return the enclosed copy of this letter in the space provided below.

Very truly yours,

KALUAKOI CORPORATION

So agreed this 16 day of SEPTEMBED , 1985.

MOLOKAI RANCH, LTD.

Βv

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WMA-SIR-104 Re: Response to WMA-IR-108.

Regarding MPU's actual costs of providing water treatment/delivery to WOM customers in Maunaloa, please answer the following questions.

a. When will an analysis of the actual cost of providing these services, in terms of both fixed and variable components, be submitted for the record in these proceedings?

RESPONSE:

The Company has not prepared such an analysis and is not currently preparing such an analysis. The Company believes that such an analysis can be prepared by WMA if one is desired.

b. When will an audited "arms length" accounting of the proposed financial arrangement between these two wholly-owned subsidiaries of MPL be submitted for the record in these proceedings?

RESPONSE:

The Company is unsure of what is requested by this SIR. However, the procedures used to reflect accounting are that MPU's transactions with WOM are currently recorded openly on MPU's accounting records and are available for review. As of now, the Company does not plan to have any audited accounting prepared or submitted.

c. How does the Company intend to apply the proposed fuel

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WMA-SIR-104 (cont.)

and electricity cost adjustments to the water treatment

expense transactions with WOM?

RESPONSE: The Company intends to apply the same procedure used for

all customers which would use the water usage billed

monthly.

SPONSOR: Robert O'Brien

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WMA-SIR-105 Re: Response to WMA-IR-119

 a. Please provide the missing entry for March 2009 in the column entitled "Mountain" of Attachment WMA-IR-119.

RESPONSE:

See Attachment WMA-SIR-105a.

Please provide the missing entries in the column entitled
 "Manuwainui" of Attachment WMA-IR-119.

RESPONSE:

See Attachment WMA-SIR-105a.

c. Please confirm that the values listed in the column entitled "Maunaloa" of Attachment WMA-IR-119 are the actual metered amounts delivered to WOM customers in Maunaloa and do not include any water deliveries through the Moana Makani bypass.

RESPONSE:

The statement above is confirmed.

d. Please confirm that the values listed in the column entitled "Kaluakoi" of Attachment WMA-IR-119 include all metered amounts delivered to MPU customers, including those amounts delivered through the Moana Makani bypass line as further detailed in Attachment WMA-IR-402f.

RESPONSE:

The statement above is confirmed.

e. Some of the values listed in the column entitled "Mahana Pump" of Attachment WMA-IR-119 differ from the corresponding entries in the column entitled "Mahana Pump

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WMA-SIR-105 (cont.)

Monthly Usage" of Attachment CA-IR-37a. Please reconcile the discrepancies and provide consistent data.

RESPONSE:

See Attachment WMA-SIR-105a. The data in the Raw Water Total Input to Puunana Mahana Pump column of Attachment WMA-SIR-105a has been compared to the actual reading data shown on Attachment CA-IR-37a and changes made to reflect the actual meter readings and usage.

f. Usage data provided in Attachments WMA-IR-119 and WMA-IR-402f do not indicate any substantial decrease during April 2008 or the next several months after the closure of the golf course. Can the Company explain this apparent contradiction? In essence, WMA needs to know how much water the golf course used, on a monthly basis, over a period of 3-4 years, and when golf course irrigation ceased, and how that particular loss of demand impacted the system, e.g. pumping, treatment, etc.

RESPONSE:

The Company is not sure what data is being compared as a basis for the question. First, Attachment WMA-IR-402f reflects the usage for the Moana Makani meter which is not related to the golf course and therefore monthly water usage

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WMA-SIR-105 (cont.)

would not be directly impacted by the closure of the golf course. Second, Attachment WMA-IR-119 does not reflect usage data for the months of April 2007 to June 2007 so no comparisons can be made for those related months in 2008. Finally, With regard to the months of July to December 2007. for the Kaluakoi meter, which is where the golf course usage would be reflected, the total usage for the six months July to December 2007 was 115,504 (Attachment WMA-SIR-105a, column 8, line 6) while the related usage for the six months July to December 2008 was 72,905 (column 8, line 18), a reduction of 42,599 or approximately 35%. Likewise, the total usage for the six months of January to June 2008 (column 8, line 12) was 96,783 while the related usage for the six months ended June 2009 was 57,505 (column 8, line 24), a reduction of 39,178 or approximately 40%. Meter readings for the golf course usage are reflected on Attachment WMA-SIR-105f.

g. Metered consumption recorded at the Kaluakoi and Moana Makani Bypass meters (as shown in Attachments WMA-IR-119 and WMA-IR-402F) decreased dramatically in October 2008, and remained substantially lower for the next

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WMA-SIR-105 (cont.)

five months. Does the Company know of any reason for this substantial decline in consumption other than the temporary rate increase granted by the PUC effective September 1, 2009?

RESPONSE:

The Company believes that a substantial portion of the decrease in usage for that period was related to the temporary rate increase approved by the Commission which was effective on September 1, 2008.

h. Values listed in the columns entitled "Mountain", "Manuwainui", "Maunaloa" and "Kaluakoi" of Attachment WMA-IR-119 differ from the corresponding values contained in the monthly reports entitled "Molokai Properties Intercompany Water Sales", as furnished to the PUC in Docket No. 2008-0115. Please explain the reasons for the variances and provide consistent data.

RESPONSE:

The monthly totals reported on each of those sources will not agree because the monthly periods used for the summaries are different. The base daily data used to produce the usage information on both Attachment WMA-IR-119 and the Molokai Properties Intercompany Water Sales monthly reports ("MPIWS") is the same data. The information on

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WMA-SIR-105 (cont.)

Attachment WMA-IR-119 is summarized by calendar month while the data appearing on the MPIWS is for the monthly period covered by the meter readings for billing purposes. These dates are normally between the 20th and 25th of the month.

i. In the reports entitled "Molokai Properties Intercompany Water Sales", metered values of usage for treated water are multiplied by a factor of 1.10 (110%) for billing purposes. Please provide the justification for each adjustment factor used in the calculations.

RESPONSE:

The 10% adder was designed to reflect the water loss associated with the water treatment process. The percent prior to 2006 was 13% and it was reduced to 10% after the completion of the updated water treatment system. The percentages used were estimated by the Company for each period they were in effect.

j. Are the values listed in the columns entitled "Manuwainui", "Maunaloa" and "Kaluakoi" of Attachment WMA-IR-119 based upon (i) actual (unadjusted) meter readings; (ii) adjusted (110%) meter readings as shown in the monthly reports entitled "Molokai Intercompany Water Sales";

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WMA-SIR-105 (cont.)

(iii) some combination of the previous two alternatives; or (iv) entirely separate sets of meter readings? Please explain the differences/variances and provide consistent data.

RESPONSE:

See response to part (h) above.

k. Please provide copies of the reports entitled "Molokai Intercompany Water Sales", or the predecessors thereof, for the period from December 2005 through September 26, 2008.

RESPONSE:

See Attachment WMA-SIR-105k.

I. Please provide inventories of water stored in the Puunanu Raw (untreated) Water Reservoir, the Maunaloa Finished Water Reservoir and the Puuokoli Finished Water Tank on a monthly basis for the period from January 1, 2006 through October 26, 2009. [Measured tank and reservoir levels (surface heights above base) are satisfactory as long as the dimensions of the tanks/reservoirs are also provided in order to calculate stored water volumes.]

RESPONSE:

While the Company makes daily observations and calculations of the water stored in its tanks and reservoirs as shown on the samples of the daily calculations (see Attachment WMA-SIR-105I), it does not transcribe those

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WMA-SIR-105 (cont.)

data to weekly, monthly or annual recap schedules. Therefore the Company does not have the data requested in the form requested and it would be unduly burdensome for the Company to prepare such data or provide copies of almost 300 pages per year. The Company will make the data available at the Company's office on Molokai if WMA

wishes to use the data to prepare its own summary.

SPONSOR: Robert O'Brien

ATTACHMENT WMA-SIR-105a

Attachment WMA-SIR-105a Docket No. 2009-0048

MPU
Water Flows At Puunana and Maunaloa Reservoir

[1] [2] [4] [3] [5] [6] [7] [8] Raw Water Finished water Total Input to Puunana Total out of Maunaloa Reservoir Line Mahana Month Year Sub-Totals Pump Mountain Manuwainui Maunaloa Kaluakoi 2007 17,734 1 July 10.031 383 2,470 16.390 2 33,405 1,178 269 2,447 24,314 Aug 3 28,209 392 19,501 Sept 240 2,743 4 Oct 36.615 478 769 2,390 25,758 5 Nov 23,632 338 211 2.641 17,420 6 249 Dec 19,464 350 12,121 2,159 115,504 7 Jan 2008 21,713 149 575 2,669 14,652 8 Feb 27,104 94 952 2,373 16,192 9 Mar 32,347 500 421 2,810 24,312 10 Apr 22,075 34 364 1,635 15,252 59 11 May 20,871 505 1,732 13,970 12 June 18,631 25 415 2,243 12,405 96,783 13 40 July 21,387 386 1.891 13,795 14 21,870 763 413 14,456 Aug 2,129 15 14,173 5.742 214 14,883 Sept 1.651 16 15,257 6,759 649 Oct 1,536 14,061 17 Nov 10.996 3.079 327 1,401 8,469 18 1,037 358 Dec 11,067 1,450 7,241 72,905 19 8.819 757 Jan 2009 444 1,124 5,500 20 1,992 Feb 10,062 424 1,333 7,444 21 Mar 13,527 4,679 183 2.254 9,710 22 Apr 11,345 3,575 116 2.159 11,563 23 14,015 3.063 683 2,249 11,428 May 24 Jun 15,831 3,276 38 2,598 11,860 57,505 25 Jul 16,187 3.924 263 2,479 13,960 26 Aug 15,938 3,543 26 2,770 11,777 27 15,593 3.672 Sep 222 2,673 13,173 28 Oct 17,018 3,975 223 13,688 2,560 29 Nov

ATTACHMENT WMA-SIR-105f

Attachment WMA-SIR-105f Docket No. 2009-0048

MPU Golf Course Usage

Line					
#	Month_	Meter # 1	Meter # 2	Meter # 3	 Total
<u>2005</u>		750	570	207	4 700
1	Jan	756	570	397	1,723
2	Feb	1,184	1,255	387	2,826
3	Mar	1,674	1,853	621	4,148
4	Apr	2,192	1,736	1,632	5,560
5	May	3,512	1,451	2,376	7,339
6	Jun	3,023	1,217	1,944	6,184
7	Jul	3,069	1,322	2,104	6,495
8	Aug	3,706	1,971	3,160	8,837
9	Sep	4,000	1,565	2,357	7,922
10	Oct	4,715	1,386	2,079	8,180
11	Nov	4,797	1,471	2,544	8,812
12	Dec	2,590	746	1,206	 4,542
13	Total	35,218	16,543	20,807	 72,568
2006					
<u>2006</u> 14	Jan	4,389	1,356	2,523	8,268
15	Feb	2,346	768	1,336	4,450
16	Mar	1,619	680	1,053	3,352
17	Apr	1,750	538	911	3,199
18	May	4,125	1,104	2,109	7,338
19	Jun	4,175	1,104	2,109	7,530 7,541
20	Jul	4,389	1,242	2,197	7,828
21	Aug	4,618	1,353	2,409	8,380
22	Sep	4,749	1,210	2,264	8,223
23	Oct	3,711	1,081	1,931	6,723
24	Nov	3,166	977	1,842	5,985
25	Dec	3,423	1,220	1,791	6,434
26	Total	42,460	12,744	22,517	 77,721
20	, otal	12,100	12,114		 .,,,,,
2007					
27	Jan	3,175	1,403	2,134	6,712
28	Feb	3,432	1,459	2,124	7,015
29	Mar	3,420	1,285	2,055	6,760
30	Apr	4,569	1,680	2,208	8,457
31	May	3,979	1,607	2,077	7,663
32	Jun	2,774	933	1,404	5,111
33	Jul	1,327	342	645	2,314
34	Aug	4,122	1,630	2,032	7,784
35	Sep	2,870	1,206	1,590	5,666
36	Oct	3,694	1,323	1,801	6,818
37	Nov	2,004	1,094	1,628	4,726
38	Dec	1,244	549	1,019	2,812
39	Total	36,610	14,511	20,717	 71,838
					 ,

Attachment WMA-SIR-105f Docket No. 2009-0048

MPU Golf Course Usage

Lìne			14-4 # 0	Maria : # 0	Takal
<u>#</u>	Month	<u>Meter#1</u>	Meter # 2	Meter # 3	 Total
2008					
40	Jan	1,402	1,055	1,449	3,906
41	Feb	643	1,425	1,801	3,869
42	Mar	2,429	1,482	1,628	5,539
43	Apr	772	713	1,019	2,504
44	May	37	9	1,449	1,495
45	Jun	6	-	1,613	1,619
46	Jul	24	-	2,000	2,024
47	Aug	28	1	1,639	1,668
48	Sep	14	-	80	94
49	Oct	35	-	-	35
50	Nov	5	-	-	5
51	Dec	5_			 5_
52	Total	5,400	4,685	12,678	 22,763
				_	
2009					
53	Jan	14	-	-	14
54	Feb	16	-	•	16
55	Mar	16	-	-	16
56	Apr	5	-	-	5
57	May	5	-	-	5
58	Jun	4	-	-	4
59	Jul	-	-	-	-
60	Aug	1	-	-	1
61	Sep	-	-	-	-
62	Oct	3	-	-	3
63	Nov		-	-	•
64	Dec				
	Total	64			 64

ATTACHMENT WMA-SIR-105k

<u> Carrier de la companya dela companya dela companya dela companya dela companya de la companya </u>	Readings			% Adjust.	Sales	Rate	
Meters	09/25/05	10/25/05	Use	Factor	in 1,000's	per 1,000	Value
Mountain Water to Puu			3,425,000	113%	3,870	\$1.00	\$3,870.00
Nana Raw Water Res.							615 to 610
MPU Kaluakoi Project Mete	199,300,400	219,898,400	21,217,600	113%	23,976	\$1.00	\$23,976.00
Plus Moana Makani	42,570,200	43,189,800					610 to MPU
M'loa 8" Project Meter	742,367,000	745,451,000	2,464,400	113%	2,785	\$2.00	\$5,570.00
Less Moana Makani	42,570,200	43,189,800					610 to Waiola
Manawainui Resv.	•						
Industrial Park			0	113%	0	\$2.00	\$0.00
2" Clearwell Effluent							610 to Waiola
Book 9	From Cubic						
Industrial_Ag	Total metered		1,024,000	113%	1,157	\$1.00	\$1,157.00

	Readings		%	Adjust.	Sales	Rate	
Meters	10/25/05	11/23/05	Use	Factor	in 1,000's	per 1,000	Value
Mountain Water to Puu				100%	0	\$1.00	\$0.00
Nana Raw Water Res.					615-340-00	610-440-??	615 to 610
MPU Kaluakoi Project Me	219,898,400	241,735,400	22,627,500	113%	25,569	\$1.00	\$25,569.00
Plus Moana Makani	43,189,800	43,980,300			610-340-00	100-440-05	610 to MPU
M'loa 8" Project Meter	745,451,000	748,149,000	1,907,500	113%	2,155	\$2.00	\$4,311.00
Less Moana Makani	43,189,800	43,980,300			610-340-00	100-440-22	610 to Waiola
Manawainui Resv.							
Industrial Park	1,323,100	1,651,500	328,400	113%	371	\$2.00	\$742.00
2" Clearwell Effluent					610-340-00	100-440-03	610 to Waiola
Book 9	rom Cubic						
	otal metered		1,161,000	113%	1,312	\$1.00	\$1,312.00
					615-340-00	100-440-04	615 to Waiola

	Readings		%	Adjust.	Sales	Rate	
Meters	11/23/05	12/23/05	Use	Factor	in 1,000's	per 1,000	Value
Mountain Water to Puu				100%	0	\$1.00	\$0.00
Nana Raw Water Res.	<u>-</u>				615-340-00	610-440-??	615 to 610
MPU Kaluakoi Project Me	241,735,400	254,947,000	13,962,600	113%	15,778	\$1.00	\$15,778.00
Plus Moana Makani	43,980,300	44,731,300			610-340-00	100-440-05	610 to MPU
M'Ioa 8" Project Meter	748,149,000	750,551,000	1,651,000	113%	1,866	\$2.00	\$3,731.00
Less Moana Makani	43,980,300	44,731,300			610-340-00	100-440-22	610 to Waiola
Manawainui Resv.							
Industrial Park	1,651,500	1,651,500	0	113%	0	\$2.00	\$0.00
2" Clearwell Effluent					610-340-00	100-440-03	610 to Waiola
Book 9	From Cubic						
Industrial Ag	Total metered		37,000	113%	42	\$1.00	\$42.00
					615-340-00	100-440-04	615 to Waiola

	Readings		9. (Contraction of the Contraction of the Contracti	6 Adjust.			Service Servic
Meters	12/23/05	01/23/06	Use	Factor		per 1,000	Value
Mountain Water to Puu				100%	0	\$1.00	\$0.0
Nana Raw Water Res.					615-340-00	610-440-??	615 to 610
MPU Kaluakoi Project Meter	254,947,000	276,288,400	22,487,600	110%	24,736	\$1.00	\$24,736.00
Plus Moana Makani	44704700	45850900			610-340-00	100-440-05	610 to MPU
M'ioa 8" Mtr	750,551,000	753,691,000	1,993,800	110%	2,193	\$2.00	\$4,386.00
Water Sale	44,704,700	45,850,900			610-340-00	100-440-22	610 to Waiola
Manawainui Resv.							
ndustrial Park	1,651,500	1,651,500	0	110%		\$2.00	\$0.00
2" Clearwell Effluent					610-340-00	100-440-03	610 to Waiola
Book 9	From Cubic						
Industrial Ag	Total metered		1,145,000	110%	1,260	\$1.00	\$1,260.00
					615-340-00	100-440-04	615 to Waiola

	Readings		%	Adjust.	Sales	Rate	
Meters	01/23/06	02/23/06	Use	Factor	in 1,000's	per 1,000	Value
Mountain Water to Puu				100%	0	\$1.00	\$0.0
Nana Raw Water Res.					615-340-00	610-440-??	615 to 610
MPU Kaluakoi Project Meter	276,288,400	293,037,400	17,620,400	110%	19,382	\$1.00	\$19,382.0
Plus Moana Makani	45850900	46722300			610-340-00	100-440-05	610 to MPU
M'Ioa 8" Mtr	753,691,000	756,633,000	2,070,600	110%	2,278	\$2.00	\$4,555.0
Water Sale	45,850,900	46,722,300			610-340-00	100-440-22	610 to Waiola
Manawainui Resv.		· <u>-</u>					
Industrial Park	1,651,500	1,651,500	0	110%	0	\$2.00	\$0.0
2" Clearwell Effluent					610-340-00	100-440-03	610 to Waiola
Book 9	From Cubic						
Industrial Ag	Total metered		291,000	110%	320	\$1.00	\$320.0
			· · · ·		615-340-00	100-440-04	615 to Waiola

				lonthy Water Values				
-		Readings		%	Adjust.	Sales	Rate	
Meters		02/23/06	03/23/06	Use	Factor	in 1,000's	per 1,000	Value
Mountain Water to Puu	New Mtr	0	2,214,600	8,077,300	100%	8,077	\$1.00	\$8,077.0
Nana Raw Water Res.	Old Mtr	90065800	95928500			615-340-00	610-440-??	615 to 610
MPU Kaluakoi Project Meter		293,037,400	296,022,800	3,663,900	110%	4,030	\$1.00	\$4,030.0
Plus Moana Makani		46722300	47400800			610-340-00	100-440-05	610 to MPU
M'loa 8" Mtr		756,633,000	759,069,000	1,757,500	110%	1,933	\$2.00	\$3,867.0
Water Sale		46,722,300	47,400,800			610-340-00	100-440-22	610 to Waiola
Manawainui Resv.								
Industrial Park		1,651,500	1,651,500	0	110%	0	\$2.00	\$0.0
2" Clearwell Effluent						610-340-00	100-440-03	610 to Waiola
Book 9		From Cubic						
Industrial Ag		Total metered		1,187,000	110%	1,306	\$1.00	\$1,306.00
						615-340-00	100-440-04	615 to Waiola

		Readings		%	6 Adjust.	Sales	Rate	
Meters		03/23/06	04/24/06	Use	Factor	in 1,000's	per 1,000	Value
Mountain Water to Puu Nana Raw Water Res.	New Mtr	2,214,600	11,199,200	8,984,600	100%	8,985 615-340-00	\$1.00 610-440- ??	\$8,985.00 615 to 610
MPU Kaluakoi Project Meter Plus Moana Makani		296,022,800 47400800	314,013,400 48142800	18,732,600	110%	20,606 610-340-00	\$1.00 100-440-05	\$20,606.00 610 to MPU
M′loa 8″ Mtr Water Sale		759,069,000 47,400,800	761,578,000 48,142,800	1,767,000	110%	1,944 610-340-00	\$2.00 100-440-22	\$3,887.00 610 to Waiola
Manawainui Resv. Industrial Park 2" Clearwell Effluent	.[1,651,500	5,181,600	3,530,100	110%	3,883 610-340-00	\$2.00 100-440-03	\$7,766.00 610 to Waiola
Book 9 Industrial Ag		From Cubic Total metered		82,000	110%	90	\$1.00	\$90.00

		Readings		9	6 Adjust.	Sales	Rate	
Meters		04/24/06	05/24/06	Use	Factor	in 1,000's	per 1,000	Value
Mountain Water to Puu Nana Raw Water Res.	New Mtr	11,199,200	22,545,000	11,345,800	100%	11,346 615-340-00	\$1.00 610-440-??	\$11,346.00 615 to 610
MPU Kaluakoi Project Meter Plus Moana Makani		314,013,400 48142800	334,148,400 49033300	21,025,500	110%	23,128 610-340-00	\$1.00 100-440-05	\$23,128.00 610 to MPU
M'loa 8″ Mtr Water Sale		761,578,000 48,142,800	764,586,000 49,033,300	2,117,500	110%	2,329 610-340-00	\$2.00 100-440-22	\$4,659.00 610 to Waiola
Manawainui Resv. Industrial Park 2" Clearwell Effluent		5,181,600	5,485,400	303,800	110%	334 610-340-00	\$2.00 100-440-03	\$668.00 610 to Waiola
Book 9	\neg	From Cubic	<u>-</u>	1,206,000	110%	1,327	\$1.00	\$1,327.00

Monthy Water Values										
		Readings			Adjust.					
Meters		05/24/06	06/23/06	Use	Factor	in 1,000's	per 1,000	Value	Value	
Mountain Water to Puu	New Mtr	22,\$45,000	27,629,100	5,084,100	100%	5,084	\$1.00	\$5,084.00	\$11,346.00	
Nana Raw Water Res.			_			615-340-00	610-440-??	615 to 610	615 to 610	
MPU Kaluakoi Project Meter	7	334,148,400	354,922,400	21,793,100	110%	23,972	\$1.00	\$23,972.00	\$23,128.00	
Plus Moana Makani		49,033,300	50,052,400			610-340-00	100-440-05	610 to MPU	610 to MPU	
M'loa 8" Mtr	–	764,586,000	767,875,000	2,269,900	110%	2,497	\$2.00	\$4,994.00	\$4,659.00	
Water Sale		49,033,300	50,052,400			610-340-00	100-440-22	610 to Waiola	610 to Waiola	
Manawainui Resv.										
Industrial Park		5,485,400	6,431,200	945,800	110%	•	\$2.00	\$2,081.00	\$668.00	
2" Clearwell Effluent						610-340-00	100-440-03	610 to Walola	610 to Waiola	
Book 9		From Cubic								
Industrial Ag		Total metered		194,000	110%	213	\$1.00	\$213.00	\$1,327.00	
	-		···			615-340-00	100-440-04	615 to Waiola	615 to Waiola	

		Readings		% Adjust.		Sales		Rate	
Meters		06/23/06	07/21/06	Use	Factor	in 1,000's	per	1,000	Value
Mountain Water to Puu	New Mtr	27,629,100	30,161,200	2,532,100	100%	- •		\$1.00	• • • •
Nana Raw Water Res.						615-340-00	WAI-440-06		615 to Waiola
MPU Kaluakoi Project Meter	7	354,922,400	374,729,400	20,816,500	110%	22,898		\$1.00	\$22,898.00
Plus Moana Makani		50,052,400	51,061,900			610-340-00	100-440-05		610 to MPU
M'Ioa Puunana 8" Mtr	-	767,875,000	771,031,000	2,146,500	110%	2,361		\$1.00	\$2,361.00
Water Sale		50,052,400	51,061,900			610-340-00	100-440-03		610 to Walola
Manawainui Resv.									
ndustrial Park		6,431,200	7,212,400	781,200	110%			\$1.00	\$859.00
2" Clearwell Effluent						610-340-00	100-440-22		610 to Waiola
Book 9	\neg	From Cubic							
ndustrial Ag		Total metered		986,000	110%	1,085		\$1.00	\$1,085.00
						615-340-00	100-440-04		615 to Waiola

		Readings		% Adjust.		Sales	Rate			
Meters		07/21/06	08/24/06	Use	Factor	in 1,000's	per	1,000	Value	
Mountain Water to Puu Nana Raw Water Res.	New Mtr	30,161,200	33,742,200	3,581,000	100%	3,581 615-340-00	WAI-440-06	\$1.00	\$3,581.00 615 to Waiola	
MPU Kaluakoi Project Meter Plus Moana Makani		374,729,400 51,061,900	400,419,400 52,103,600	26,731,700	110%	29,405 610-340-00	100-440-05	\$1.00	\$29,405.00 610 to MPU	
M'loa Puunana 8" Mtr Water Sale		771,031,000 51,061,900	775,217,000 52,103,600	3,144,300	110%	3,459 610-340-00	100-440-03	\$1.00	\$3,459.00 610 to Waiola	
Manawainui Resv. Industrial Park 2'' Clearwell Effluent		7,212,400	7,730,500	518,100	110%	570 610-340-00	100-440-22	\$1.00	\$570.00 610 to Waiola	
Book 9 Industrial Ag		From Cubic Total metered		1,387,000	110%	1,526		\$1.00	\$1,526.00	

		Readi	ngs	%	Adjust.	Sales		Rate	
Meters		08/24/06	09/25/06	Use	Factor	in 1,000's	per '	1,000	Value
Mountain Water to Puu Nana Raw Water Res.	New Mtr	33,742,200	37,206,500	3,464,300	100%	3,464 615-340-00	WAI-440-06	\$1.00	\$3,464.0 615 to Waiola
MPU Kaluakoi Project Meter Plus Moana Makani		400,419,400 52,103,600	424,581,400 53,457,100	25,515,500	110%	28,067 610-340-00	100-440-05	\$1.00	\$28,067.00 610 to MPU
M'loa Puunana 8" Mtr Water Sale		775,217,000 52,103,600	779,189,000 53,457,100	2,618,500	110%	2,880 610-340-00	100-440-03	\$1.00	\$2,880.00 610 to Waiola
Manawainui Resv. Industrial Park 2" Clearwell Effluent		7,730,500	8,136,600	406,100	110%	447 610-340-00	100-440-22	\$1.00	\$447.0 610 to Waiola
Book 9 Industrial Ag	\neg	From Cubic Total metered		1,164,000	110%	1,280	;	\$1.00	\$1,280. 0

		Readi	ngs	%	6 Adjust.	Sales	Rate	
Meters		09/25/06	10/25/06	Use	Factor	in 1,000's	per 1,000	Value
Mountain Water to Puu Nana Raw Water Res.	New Mtr	37,206,500	39,712,500	2,506,000	100%	2,506 615-340-00	\$1.00 WAI-440-06	\$2,506.00 615 to Waiola
MPU Kaluakoi Project Meter Plus Moana Makani		424,581,400 53,457,100	440,009,400 54,185,100	16,156,000	110%	17,772 610-340-00	\$1.00 100-440-05	\$17,772.00 610 to MPU
M'loa Puunana 8" Mtr Water Sale	[779,189,000 53,457,100	782,379,000 54,185,100	2,462,000	110%	2,708 610-340-00	\$1.00 100-440-03	\$2,708.00 610 to Waiola
Manawainui Resv. Industrial Park 2" Clearwell Effluent		8,136,600	8,244,500	108,000	110%	119 610-340-00	\$1.00 100-440-22	\$119.00 610 to Waiola
Book 9 Industrial Ag		From Cubic Total metered		1,164,000	110%	1,280	\$1.00	\$1,280.00

		Readi	ngs	%	Adjust.	Sales	Ra	te
Meters		10/25/06	11/24/06	Use	Factor	in 1,000's	per 1,00	00 Value
Mountain Water to Puu Nana Raw Water Res.	New Mtr	39,712,500	43,421,800	3,709,300	100%	3,709 615-340-00	\$1.0 WAI-440-06	0 \$3,709.06 615 to Waiola
MPU Kaluakoi Project Meter Plus Moana Makani		440,009,400 54,185,100	457,029,400 55,089,200	17,924,100	110%	19,717 610-340-00	\$1.0 100-440-05	0 \$19,717.00 610 to MPU
M'Ioa Puunana 8" Mtr Water Sale		782,379,000 54,185,100	785,116,000 55,089,200	1,832,900	110%	2,016 610-340-00	\$1.0 100-440-03	0 \$2,016.00 610 to Waiola
Manawainui Resv. Industrial Park 2" Clearwell Effluent		8.244,600	8,355,100	110,500	110%	122 610-340- 00	\$1.0 100-440-22	0 \$122.00 610 to Waiola
Book 9 Industrial Ag		From Cubic Total metered	Γ	1,053,000	110%	1,158	\$1.0	0 \$1,158.00

		Readings		% Adjust.		Sales	Rate	
Meters		11/24/06	12/22/06	Use	Factor	in 1,000's	per 1,00	0 Value
Mountain Water to Puu	New Mtr	43,421,800	46,238,700	2,816,900	100%	•	\$1.00	\$2,817.00
Nana Raw Water Res.						615-340-00	WAI-440-06	615 to Waiola
MPU Kaluakoi Project Meter		457,029,400	470,976,400	14,986,300	110%	16,485	\$1.00	\$16,485.00
Plus Moana Makani		55,089,200	56,128,500			610-340-00	100-440-05	610 to MPU
M'Ioa Puunana 8" Mtr		785,116,000	788,128,000	1,972,700	110%	2,170	\$1.00	\$2,170.00
Water Sale		55,089,200	56,128,500			610-340-00	100-440-03	610 to Waiola
Manawainui Resv.								
ndustrial Park		8,355 <u>,1</u> 00	8,564,200	209,100	110%		\$1.00	•
2" Clearwell Effluent						610-340-00	100-440-22	610 to Waiola
Book 9		From Cubic						
ndustrial Ag		Total metered		345,000	110%	380	\$1.00	\$380.0

		Readi	ngs	%	6 Adjust.	Sales		Rate	
Meters		12/22/06	01/22/07	Use	Factor	in 1,000's	per 1	,000	Vatue
Mountain Water to Puu Nana Raw Water Res.	New Mtr	46,238,700	49,134,300	2,895,600	100%	2,896 615-340-00	\$ WAI-440-06	1.00	\$2,896.00 615 to Waiola
MPU Kaluakoi Project Meter Plus Moana Makani		470,976,400 56,128,500	485,529,400 57,248,600	15,673,100	110%	17,240 610-340-00	\$ 100-440-05	1.00	\$17,240.00 610 to MPU
M'loa Puunana 8" Mtr Water Sale		788,128,000 56,128,500	791,185,000 57,248,600	1,936,900	110%	2,131 610-340-00	\$ 100 -44 0-03	1.00	\$2,131.00 610 to Waiola
Manawainui Resv. Industrial Park 2" Clearwell Effluent		8,564,200	8,671,300	107,100	110%	118 610-340-00	\$ 100-440-22	1.00	\$118.00 610 to Waiola
Book 9 Industrial Ag		From Cubic Total metered		1,223,000	110%	1,345	\$	1.00	\$1,345.0

		Readi	ngs	%	Adjust.	Sales		Rate	
Meters		01/22/07	02/22/07	Use	Factor	in 1,000's	per	1,000	Value
Mountain Water to Puu Nana Raw Water Res.	New Mtr	49,134,300	51,760,900	2,626,600	100%	2,627 615-340-00	WAI-440-06	\$1.00	\$2,627.00 615 to Walola
MPU Kaluakoi Project Meter Plus Moana Makani		485,529,400 57,248,600	506,015,400 58,442,600	21,680,000	110%	23,848 610-340-00	100-440-05	\$1.00	\$23,848.00 610 to MPU
M'loa Puunana 8" Mtr Water Sale	j	791,185,000 57,248,600	795,082,000 58,442,600	2,703,000	110%	2,973 610-340-00	100-440-03	\$1.00	\$2,973.00 610 to Waiola
Manawainui Resv. Industrial Park 2" Clearwell Effluent		8,671,300	8,921,600	250,300	110%	275 610-340-00	100-440-22	\$1.00	\$275.06 610 to Walola
Book 9 Industrial Ag		From Cubic Total metered	<u> </u>	604,000	110%	664		\$1.00	\$664.06

		Readi	ngs	%	Adjust.	Sales		Rate	
Meters		02/22/07	03/22/07	Use	Factor		per	1,000	Value
Mountain Water to Puu Nana Raw Water Res.	New Mtr	51,760,900	53,485,800	1,724,900	100%	1,725 615-340-00	WAI-440-06	\$1.00	\$1,725.0 615 to Waiola
MPU Kaluakoi Project Meter Plus Moana Makani		506,015,400 58,442,600	521,891,400 59,422,500	16,855,900	110%	18,541 610-340<i>-</i>00	100-440-05	\$1.00	\$18,541.0 610 to MPU
M'loa Puunana 8" Mtr Water Sale		795,082,000 58,442,600	798,314,000 59,422,500	2,252,100	110%	2,477 610-340-00	100-440-03	\$1.00	\$2,477.0 610 to Waiola
Manawainui Resv. Industrial Park 2" Clearwell Effluent		8,921,600	9,242,100	320,500	110%	353 610-340-00	100-440-22	\$1.00	\$353.0 610 to Walola
Book 9 Industrial Ag		From Cubic Total metered	<u> </u>	48,000	110%	53		\$ 1.00	\$53.0

		Readings		% Adjust.		Sales	Rate	his company of the
Meters		03/22/07	04/23/07	Use	Factor		per 1,000	Value
Mountain Water to Puu Nana Raw Water Res.	New Mtr	53,485,800	55,070,400	1,584,600	100%	1,585 615-340-00	\$1.00 WAI-440-06	\$1,585.00 615 to Waiola
MPU Kaluakoi Project Meter Plus Moana Makani		521,891,400 59,422,500	542,701,400 60,704,400	22,091,900	110%	24,301 610-340-00	\$1.00 100-440-05	\$24,301.00 610 to MPU
M'loa Puunana 8" Mtr Water Sale (Mloa Proj Mtr)		798,314,000 59,422,500	803,367,000 60,704,400	3,771,100	110%	4,148 610-340-00	\$1.00 100-440-03	\$4,148.00 610 to Waiola
Manawainui Resv. Industrial Park 2" Clearwell Effluent		9,242,100	9,316,900	74,800	110%	82 610-340-00	\$1.00 100-440-22	\$82.00 610 to Waiola
Book 9 Industrial Ag		From Cubic Total metered	Г	473,000	110%	520	\$1.00	\$520.00

		Readi	ngs	%	ն Adjust.	Sales	R	ate
Meters		04/23/07	05/23/07	Use	Factor	in 1,000's	per 1,0	000 Value
Mountain Water to Puu Nana Raw Water Res.	New Mtr	55,070,400	56,231,000	1,160,600	100%	1,161 615-340-00	\$1. WAI-440-06	.00 \$1,161.04 615 to Waiola
MPU Kaluakoi Project Meter Plus Moana Makani		542,701,400 60,704,400	563,663,400 62,187,900	22,445,500	110%	24,690 610-340-00	\$1. 100-440-05	.00 \$24,690.00 610 to MPU
M'Ioa Puunana 8" Mtr Water Sale (Mloa Proj Mtr)		803,367,000 60,704,400	808,741,000 62,187,900	3,890,500	110%	4,280 610-340-00	\$1. 100 -44 0-03	.00 \$4,280.00 610 to Waiola
Manawainui Resv. Industrial Park 2" Clearwell Effluent		9,316,900	9,413,600	96,700	110%	106 610-340-00	\$1. 100-440-22	.00 \$106.00 610 to Waiola
Book 9 Industrial Ag	l.	From Cubic Total metered	Γ	324,000	110%	356	\$1.	.00 \$356.00

	and residents	en interes		Monthy Water Values		\$\$\$\$\$#####\$\Y\$F\\			
		Readi			% Adjust.	•			5/31/2007
Meters		05/23/07	06/26/07	Use	Factor	in 1,000's	per 1,0	00 Value	Value
Mountain Water to Puu	New Mtr	56,231,000	61,367,000	5,136,000	100%		\$1.	· ·	
Nana Raw Water Res.						615-340-00	WAI-440-06	615 to Waiola	615 to Waiola
MPU Kaluakoi Project Meter	7	563,663,400	584,167,400	22,141,300	110%	24,355	\$1.	90 \$24,355.00	\$24,690.00
Plus Moana Makani		62,187,900	63,825,200			610-340-00	100-440-05	610 to MPU	610 to MPU
M'ioa Puunana 8" Mtr	7	808,741,000	813,852,000	3,473,700	110%	3,821	\$1.	33,821.00	\$4,280.00
Water Sale (Mloa Proj Mtr)		62,187,900	63,825,200			610-340-00	100-440-03	610 to Walola	610 to Waiola
Manawainui Resv.	٦ :	 -							
Industrial Park		9,413,600	9,757,700	344,100	110%	= - =	\$1.	7	*
2" Clearwell Effluent	_					610-340-00	100-440-22	610 to Waiola	610 to Waiola
David 2	-	F 0. his]
Book 9 Industrial Ag		From Cubic Total metered	ſ	541,000	110%	595	\$1.	00 \$595.00	\$356.00
			·		•	615-340-00	100-440-04	615 to Waiola	615 to Waiola

		Readi	ngs	%	Adjust.	Sales	Rate	}
Meters		06/26/07	07/25/07	Use	Factor	in 1,000's	per 1,000) Value
Mountain Water to Puu Nana Raw Water Res.	New Mtr	61,367,000	71,032,800	9,665,800	100%	9,666 615-340-00	\$1.00 WAI-440-06	\$9,666.0 615 to Waiola
MPU Kaluakoi Project Meter Plus Moana Makani		584,167,400 63,825,200	597,329,400 64,748,200	14,085,000	110%	15,494 610-340<i>-</i>00	\$1.00 100-440-05	\$15,494.00 610 to MPU
M'Ioa Puunana 8" Mtr Water Sale (Mloa Proj Mtr)		813,852,000 63,825,200	817,063,000 64,748,200	2,288,000	110%	2,517 610-340-00	\$1.00 100-440-03	\$2,517.00 610 to Waiola
Manawainui Resv. Industrial Park 2" Clearwell Effluent		9,757,700	9,944,200	186,500	110%	205 610-340-00	\$1.00 100-440-22	\$205.96 610 to Waiola
Book 9 Industrial Ag		From Cubic Total metered	Γ	573,000	110%	630	\$1.00	\$630.0

		Readi	ngs	%	Adjust.	Sales	Ra	te
Meters		07/25/07	08/24/07	Use	Factor	in 1,000's	per 1,0	00 Value
Mountain Water to Puu Nana Raw Water Res.	New Mtr	71,032,800	72,211,100	1,178,300	100%	1,178 615-340-00	\$1.6 WAI-440-06	00 \$1,178.00 615 to Waiola
MPU Kaluakoi Project Meter Plus Moana Makani		597,329,400 64,748,200	620,625,400 65,823,800	24,371,600	110%	26,809 610-340-00	\$1.0 100-440-05	00 \$26,809.00 610 to MPU
M'Ioa Puunana 8″ Mtr Water Sale (Mloa Proj Mtr)		817,063,000 64,748,200	820,656,000 65,823,800	2,517,400	110%	2,769 610-340-00	\$1.0 100-440-03	00 \$2,769.0 0 610 to Waiola
Manawainui Resv. ndustrial Park 2" Clearwell Effluent		9,944,200	10,368,200	424,000	110%	466 610-340-00	\$1.0 100-440-22	00 \$466.00 610 to Waiola
Book 9 ndustrial Ag	4	From Cubic Total metered	<u> </u>	1,005,000	110%	1,106	\$1.0	00 \$1,106. 0

		Readia	ngs	%	Adjust.	Sales		Rate	
Meters		08/24/07	09/25/07	Use	Factor	in 1,000's	per	1,000	Value
Mountain Water to Puu Nana Raw Water Res.	New Mtr	72,211,100	72,603,500	392,400	100%	392 615-340-00	WAI-440-06	\$1.00	\$392.0 615 to Waiola
MPU Kaluakoi Project Meter Plus Moana Makani		620,625,400 65,823,800	641,401,400 67,173,200	22,125,400	110%	24,338 610-340-00	100-440-05	\$1.00	\$24,338.0 610 to MPU
M'Ioa Puunana 8" Mtr Water Sale (Mloa Proj Mtr)		820,656,000 65,823,800	824,799,000 67,173,200	2,793,600	110%	3,073 610-340-00	100-440-03	\$1.00	\$3,073.0 610 to Waiola
Manawainui Resv. Industriał Park 2" Clearwell Effluent		10,368,200	10,628,900	260,700	110%	287 610-340-00	100-440-22	\$1.00	\$287.0 610 to Waiola
Book 9 ndustrial Ag		From Cubic Total metered		399,000	110%	439		\$1.00	\$439.0

		Readi	ngs	%	🕯 Adjust.	Sales		Rate	
Meters		09/25/07	10/25/07	Use	Factor	in 1,000's	per	1,000	Value
Mountain Water to Puu	New Mtr	72,603,500	73,089,000	485,500	100%	486		\$1.00	\$486.00
Nana Raw Water Res.						615-340-00	WAI-440-06		615 to Waiola
MPU Kaluakoi Project Meter	_	641,401,400	663,669,400	23,562,200	110%	25,918		\$1.00	\$25,918.00
Plus Moana Makani		67,173,200	68,467,400			610-340-00	100-440-05		610 to MPU
M'ioa Puunana 8" Mtr		824,799,000	828,434,000	2,340,800	110%	2,575		\$1.00	\$2,575.00
Water Sale (Mloa Proj Mtr)		67,173,200	68,467,400			610-340-00	100-440-03		610 to Waiola
Manawainui Resv.									
Industrial Park		10,628,900	11,286,100	657,200	110%	723 610-340-00		\$1.00	\$723.00
2" Clearwell Effluent						610-340-00	100-440-22		610 to Waiola
300k 9		From Cubic							
industrial Ag	l l	Total metered		536,000	110%	590	;	\$1.00	\$590.0

		Readi	ngs	%	. Adjust.	Sales		Rate	
Meters		10/25/07	11/26/07	Use	Factor	in 1,000's	per	1,000	Value
Mountain Water to Puu	New Mtr	73,089,000	73,494,900	405,900	100%			\$1.00	\$406.0
Nana Raw Water Res.						615-340-00	WAI-440-06		615 to Waiola
MPU Kaluakoi Project Meter		663,669,400	680,994,400	18,675,500	110%	20,543		\$1.00	\$20,543.0
Plus Moana Makani		68,467,400	69,817,900			610-340-00	100-440-05		610 to MPU
M'Ioa Puunana 8" Mtr	\neg	828,434,000	832,562,000	2,777,500	110%	3,055		\$1.00	\$3,055.0
Water Sale (Mloa Proj Mtr)		68,467,400	69,817,900			610-340-00	100-440-03		610 to Waiola
Manawainui Resv.									
ndustrial Park		11,286,100	11,635,300	349,200	110%			\$1.00	\$384.0
2" Clearwell Effluent						610-340-00	100-440-22		610 to Waiola
Book 9	_	From Cubic							
ndustrial Ag		Total metered		122,000	110%	134		\$1.00	\$134.0

		Readi	ings	%	6 Adjust.	Sales		Rate	:
Meters		11/26/07	12/26/07	Use	Factor	in 1,000's	per	1,000	Value
Mountain Water to Puu	New Mtr	73,494,900	73,769,700	274,800	100%	275		\$1.00	\$275.0
Nana Raw Water Res.						615-340-00	WAI-440-06		615 to Waiola
MPU Kaluakoi Project Meter		680,994,400	690,816,400	11,143,100	110%	12,257		\$1.00	\$12,257.0
Plus Moana Makani		69,817,900	71,139,000			610-340-00	100-440-05		610 to MPU
M'Ioa Puunana 8" Mtr	\neg	832,562,000	835,887,000	2,003,900	110%	2,204		\$1.00	\$2,204.0
Water Sale (Mloa Proj Mtr)		69,817,900	71,139,000			610-340-00	100-440-03		610 to Waiola
Manawainui Resv.	7	1]						•
ndustrial Park		11,635,300	11,983,800	348,500	110%	383		\$1.00	\$383.0
2" Clearwell Effluent						610-340-00	100-440-22		610 to Waiola
Book 9	\neg	From Cubic							
ndustrial Ag		Total metered		236,000	110%	260		\$1.00	\$260.0
						615-340-00	100-440-04		- 615 to Waiola

		Readi	ngs	%	Adjust.	Sales		Rate	
Meters		12/26/07	01/24/08	Use	Factor	in 1,000's	per	1,000	Value
Mountain Water to Puu	New Mtr	73,769,700	73,933,200	163,500	100%	164		\$1.00	\$164.0
Nana Raw Water Res.						615-340-00	WAI-440-06		615 to Waiola
MPU Kaluakoi Project Meter	\neg	690,816,400	702,826,400	13,465,800	110%	14,812		\$1.00	\$14,812.0
Plus Moana Makani		71,139,000	72,594,800			610-340-00	100-440-05		610 to MPU
M'Ioa Puunana 8" Mtr		835,887,000	839,846,000	2,503,200	110%	2,754		\$1.00	\$2,754.0
Water Sale (Mloa Proj Mtr)		71,139,000	72,594,800			610-340-00	100-440-03		610 to Waiola
Manawainui Resv.									
Industrial Park		11,983,800	12,317,800	334,000	110%	367	400 440 00	\$1.00	\$367.00
2" Clearwell Effluent						610-340-00	100-440-22		610 to Walola
Book 9	7	From Cubic							
ndustrial Ag		Total metered		67,000	110%	74		\$1.00	\$74.0
						615-340-00	100-440-04		615 to Wajola

		Readi	ings	%	Adjust.	Sales		Rate	
Meters		01/24/08	02/25/08	Use	Factor	in 1,000's	per 1	1,000	Value
Mountain Water to Puu	New Mtr	73,933,200	74,062,800	129,600	100%	130	5	1.00	\$130.00
Nana Raw Water Res.				-		615-340-00	WAI-440-06		615 to Waiola
MPU Kaluakoi Project Meter		702,826,400	720,804,400	19,421,900	110%	21,364	\$	1.00	\$21,364.00
Plus Moana Makani		72,594,800	74,038,700	•		610-340-00	100-440-05		610 to MPU
M'Ioa Puunana 8" Mtr	–	839,846,000	844,269,000	2,979,100	110%	3,277		1.00	\$3,277.00
Water Sale (Mloa Proj Mtr)		72,594,800	74,038,700	•		610-340-00	100-440-03		610 to Waiola
Manawainui Resv.	\neg]					
ndustrial Park		12,317,800	13,534,000	1,216,200	110%	1,338	\$	1.00	\$1,338.00
2" Clearwell Effluent						610-340-00	100-440-22		610 to Waiola
	-	From Cubic							
Industrial Ag		Total metered		440,000	110%	484	\$	1.00	\$484.00

		Readi	ngs	%	Adjust.	Sales	Ra	te
Meters		02/25/08	03/24/08	Use	Factor	in 1,000's	per 1,0	00 Value
Mountain Water to Puu Nana Raw Water Res.	New Mtr	74,062,800	74,063,300	500	100%	615-340-00	\$1.6 WAI-440-06	00 \$1.00 615 to Waiola
MPU Kaluakoi Project Meter Plus Moana Makani		720,804,400 74,038,700	739,328,400 75,340,500	19,825,800	110%	21,808 610-340-00	\$1.0 100-440-05	00 \$21,808.00 610 to MPU
M'loa Puunana 8" Mtr Water Sale (Mloa Proj Mtr)		844,269,000 74,038,700	848,322,000 75,340,500	2,751,200	110%	3,026 610-340-00	\$1.0 100-440-03	00 \$3,026.00 610 to Waiola
Manawainui Resv. Industrial Park 2" Clearwell Effluent		13,534,000	13,938,000	404,000	110%	444 610-340-00	\$1.0 100-440-22	00 \$444.00 610 to Waiola
Book 9 Industrial Ag		From Cubic Total metered	Γ-	352,000	110%	387	\$1.6	00 \$387.00

		Readi	ngs	. %	Adjust.	Sales	R	ate
Meters		03/24/08	04/24/08	Use	Factor	in 1,000's	per 1,0	000 Value
Mountain Water to Puu Nana Raw Water Res.	New Mtr	74,063,300	74,065,800	2,500	100%	61 5-340-00 3	\$1 WAI-440-06	.00 \$3.0 615 to Waiola
MPU Kaluakoi Project Meter Plus Moana Makani		739,328,400 75,340,500	754,566,460 76,871,200	16,768,700	110%	18,446 610-340-00	\$1 100-440-05	.00 \$18,446.0 610 to MPU
M'Ioa Puunana 8" Mtr Water Sale (Mloa Proj Mtr)		848,322,000 75,340,500	851,571,000 76,871,200	1,718,300	110%	1,890 610-340-00	\$1 100-440-03	.00 \$1,890.0 610 to Waiola
Manawainui Resv. Industrial Park 2" Clearwell Effluent		13,938,000	14,283,300	345,300	110%	380 610-340-00	\$1 100-440-22	.00 \$380.0 610 to Walola
Book 9 Industrial Ag		From Cubic Total metered		408,000	110%	449	\$1	.00 \$449.0

MPU Kaluakoi Project Meter 754,566,400 768,209,400 14,999,400 110% Plus Moana Makani 76,871,200 78,227,600 110% M'Ioa Puunana 8'' Mtr Water Sale (Mioa Proj Mtr) 851,571,000 854,546,000 1,618,600 110% Manawainui Resv. Industrial Park 14,283,300 14,773,500 490,200 110% Book 9 From Cubic From Cubic From Cubic From Cubic From Cubic	Sales	Rate	•
Nana Raw Water Res. MPU Kaluakoi Project Meter 754,566,400 768,209,400 14,999,400 110% Plus Moana Makani 76,871,200 78,227,600 110% M'loa Puunana 8" Mtr Water Sale (Mioa Proj Mtr) 851,571,000 854,546,000 1,618,600 110% Manawainui Resv. Industrial Park 14,283,300 14,773,500 490,200 110% Book 9 From Cubic From Cubic From Cubic From Cubic	in 1,000's	per 1,000	Value
MPU Kaluakoi Project Meter 754,566,400 768,209,400 14,999,400 110% Plus Moana Makani 76,871,200 78,227,600 110% M'Ioa Puunana 8" Mtr Water Sale (Mioa Proj Mtr) 851,571,000 854,546,000 1,618,600 110% Manawainui Resv. Industrial Park 2" Clearwell Effluent 14,283,300 14,773,500 490,200 110% Book 9 From Cubic	5	\$1.00	\$5.0
Plus Moana Makani 76,871,200 78,227,600 M'Ioa Puunana 8" Mtr 851,571,000 854,546,000 1,618,600 Water Sale (Mioa Proj Mtr) 76,871,200 78,227,600 Manawainui Resv. 14,283,300 14,773,500 490,200 110% 2" Clearwell Effluent From Cubic	615-340-00	WAI-440-06	615 to Waiola
M'Ioa Puunana 8" Mtr	16,499	\$1.00	\$16,499.0
Water Sale (Mloa Proj Mtr) 76,871,200 78,227,600 Manawainui Resv. 14,283,300 14,773,500 490,200 110% 2" Clearwell Effluent From Cubic From Cubic 110% 110	610-340-00	100-440-05	610 to MPU
Manawainui Resv.	1,780	\$1.00	\$1,780.00
Industrial Park	610-340-00	100-440-03	610 to Waiola
2" Clearwell Effluent Book 9 From Cubic			
Book 9 From Cubic	539 610-340-00	\$1.00 100-440-22	•
······································	010-340-00	100-440-22	610 to Waiola
Industrial Ag Total metered 1,954,000 110%	2,149 615-340-00	\$1.00 100-440-04	\$2,149.0

		Readi	ngs	%	Adjust.	Sales	R	ate
Meters		05/23/08	06/23/08	Use	Factor	in 1,000's	per 1,6	000 Value
Mountain Water to Puu	New Mtr	74,071,200	74,075,100	3,900	100%	4	\$1	.00 \$4.0
Nana Raw Water Res.						615-340-00	WAI-440-06	615 to Waiola
MPU Kaluakoi Project Meter		768,209,400	778,732,400	11,957,800	110%	13,154	\$1	.00 \$13,154.0
Plus Moana Makani		78,227,600	79,662,400			610-340-00	100-440-05	610 to MPU
M'Ioa Puunana 8" Mtr		854,546,000	858,227,000	2,246,200	110%	2,471	\$1	.00 \$2,471.0
Water Sale (Mloa Proj Mtr)		78,227,600	79,662,400			610-340-00	100-440-03	610 to Waiola
Manawainui Resv.								
ndustrial Park		14,773,500	15,212,800	439,300	110%	483	•	.00 \$483.0
2" Clearwell Effluent						610-340-00	100-440-22	610 to Waiola
300k 9	_	From Cubic						
ndustrial Ag	<u> </u>	Total metered		447,000	110%	492	\$1	.00 \$492.0

Molokai Properties Interco	ompar	y Water	Sales												
tire in the second control of the second con				7/31/07	8/31/2007	9/30/2	2007 10/31/200	7 11/30/200	12/31/200	7 1/31/2008	2/29/2008	3/31/2008	4/30/2008	5/31/2008	6/30/2008
Meters	% Adjust Factor			Value	,	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value
Mountain Water to Puu New Nana Raw Water Res.	100%		9666 615 to Waiola	615	1,178 to Waiola	392 615 to Waiol			6 27 615 to Waiola				3 615 to Waiola	5 615 to Waiola	4 615 to Waiola
MPU Kaluakoi Project Meter Plus Mozna Makani	110%	\$1.00 100-440-05	610 to MPU	15494 610	26,809 to MPU	24,338 610 to MPU	.00 259° 610 to MPU	18 2054 810 to MPU	3 1225 610 to MPU	7 14812 610 to MPU				16499 610 to MPU	13154 610 to MPU
M'Ioa Puunana 8" Mtr Water Sale (Mioa Proj Mtr)	110%	\$1.00 100-440-03	610 to Waiola	2517 610	2,769 to Waiola	3,073 610 to Waiola				4 2754 610 to Waiola	3277 810 to Waiola			1780 610 to Waio la	
Manawainui Resv. Industrial Park 2" Clearwell Effluent	110%	\$1.00 100-440-22	610 to Waiola	205 610	486 to Waiola	287 610 to Waioli			4 38: 610 to Warola		1338 610 to Waiola			539 610 to Waiola	
Book 9 Industrial Ag	110%		- 615 to Waiola	630 615 1	1,106 to Waiola	439 615 to Waiok) 74 615 to Waiola		387 615 to Waiola	449 615 to Waiola	2149 615 to Waiola	

		Readi	nas		Adjust.			Mille March May Consider	
Meters		06/23/08	07/23/08	Use	Factor		per	1,000	Value
Mountain Water to Puu Nana Raw Water Res.	New Mtr	74,075,100	74,076,000	900	100%	1 615-340- 00	WAI-440-06	\$1.00	\$1.00 615 to Waiola
Mana Naw Water Nes.						010-340-00	1171-440-00		010 to svatota
MPU Kaluakoi Project Meter		778,732,400	790,811,400	13,463,700	110%	14,810		\$1.00	\$14,810.00
Plus Moana Makani		79,662,400	81,047,100			610-340-00	100-440-05		610 to MPU
M'Ioa Puunana 8" Mtr	7	858,227,000	861,578,000	1,966,300	110%	2,163		\$1.00	\$2,163.00
Water Sale (Mloa Proj Mtr)		79,662,400	81,047,100			610-340-00	100-440-03		610 to Watola
Manawainui Resv.									
Industrial Park		15,212,800	15,400,000	187,200	110%	206		\$1.00	\$206.00
2" Clearwell Effluent						610-340-00	100-440-22		610 to Walola
Book 9	\neg	From Cubic							
Industrial Ag	•	Total metered		991,000	110%	1,090		\$1.00	\$1,090.00
						615-340-00	100-440-04		615 to Waiola

		Readi	ings	%	6 Adjust.	Sales		Rate	
Meters		07/23/08	08/25/08	Use	Factor	in 1,000's	per	1,000	Value
Mountain Water to Puu	New Mtr	74,076,000	74,078,500	2,500	100%	3		\$1.00	\$3.00
Nana Raw Water Res.			•	•		615-340-00	WAI-440-06		615 to Waiola
MPU Kaluakoi Project Meter	-	790,811,400	804,284,400	15,242,400	110%	16,767		\$1.00	\$16,767.00
Plus Moana Makani		81,047,100	82,816,500	•		610-340-00	100-440-05		610 to MPU
M'ioa Puunana 8" Mtr	–	861,578,000	865,464,000	2,116,600	110%	2,328		\$1.00	\$2,328.00
Water Sale (Mloa Proj Mtr)		81,047,100	82,816,500	•		610-340-00	100-440-03		610 to Waiola
Manawainui Resv.									
Industrial Park		15,400,000	15,984,700	584,700	110%	643		\$1.00	\$643.00
2" Clearwell Effluent						610-340-00	100-440-22		610 to Waiola
Book 9	\neg	From Cubic							
Industrial Ag		Total metered		1,216,000	110%	1,338		\$1.00	\$1,338.00

Little This could be for the little	Markani Markani	New York	Mi X	onthy Water Values	CHANNES A	全进行机型(40.34)		Wagan	- Danagaring Grown	
		Readi	•		% Adjust.			Rate	· •	
Meters		08/25/08	09/26/08	Use	Factor	in 1,000's	per	1,000	Value	Value
Mountain Water to Puu	New Mtr	74,078,500	80,270,400	6,191,900	100%	6,192		\$1.00	\$6,192.00	\$3.00
Nana Raw Water Res.						615-340-00	WAI-440-06		615 to Waiola	615 to Waiola
MPU Kaluakoi Project Meter		804,284,400	819,836,400	16,725,600	110%	18,398		\$1.00	\$18,398.00	\$16,767.00
Plus Moana Makani		B2,B16,500	83,990,100			610-340-00	100-440-05		610 to MPU	610 to MPU
M'Ioa Puunana 8" Mtr		865,464,000	868,451,000	1,813,400	110%	1,995		\$1.00	\$1,995.00	\$2,328.00
Water Sale (Mloa Proj Mtr)		82,816,500	83,990,100			610-340-00	100-440-03		610 to Waiola	610 to Waiola
Manawainui Resv.	\neg		-							
Industrial Park		15,984,700	16,231,500	246,800	110%			\$1.00	\$271.00	\$643.00
2" Clearwell Effluent	_					610-340-00	100-440-22		610 to Walola	610 to Waiola
Book 9	\neg	From Cubic								
Industrial Ag		Total metered		616,000	110%	678		\$1.00	\$678.00	\$1,338.00
						615-340-00	100-440-04		615 to Waiola	615 to Waiola

	i parte pr			Monthy Water Values	UTO TIEVE	erne varekter		ing P	romernitati.	######################################
		Readi	ngs		% Adjust.	Sales		Rate	30-Sep	
Meters		08/25/08	09/26/08	Use	Factor	in 1,000's	per	1,000	Valu e	Value
Mountain Water to Puu	New Mtr	74,078,500	80,270,400	6,191,900	100%	6,192		\$1.00	\$6,192.00	\$3.00
Nana Raw Water Res.						615-340-00	WAI-440-06		615 to Walola	615 to Waiola
MPU Kaluakoi Project Meter	1	804,284,400	819,836,400	16,725,600	110%	18,398		\$1.00	\$18,398.00	\$16,767.00
					old rate	9,803		\$1.00	\$9,803.00	
					new rate	8,595		\$1.90	\$16,331.00	
Plus Moana Makani	ſ	82,816,500	83,990,100			610-340-00	100-440-05		610 to MPU	610 to MPU
M'loa Puunana 8" Mtr	1	865,464,000	868,451,000	1,813,400	110%	1.995		\$1.00	\$1,995.00	\$2,328.00
Water Sale (Mloa Proj Mtr)	J	82,816,500	83,990,100			610-340-00	100-440-03		610 to Waiola	610 to Waiola
Manawainui Resv.	1		_							
Industrial Park		15,984,700	16,231,500	246,800	110%	271		\$1.00	\$271.00	\$643.00
2" Clearwell Effluent	J					610-340-00	100-440-22		610 to Waiola	610 to Waiola
Book 9	1	From Cubic							ļ	
Industrial Ag	1	Total metered	ſ	616,000	110%	678		\$1,00	\$678.00	\$1,338.00
<u> </u>	-				1	615-340-00	100-440-04		615 to Waiola	615 to Waiola

				Monthy Water Values			245412.01		Revised	tilikusti kalaka milaimus
		Read			% Adjust.			Rate		I
Meters		08/25/08	09/26/08	Use	Factor		per :	1,000	Value	Value
Mountain Water to Puu	New Mtr	74,078,500	80,270,400	6,191,900	100%	6,192		\$2.78	\$17,213.00	\$6,192.00
Nana Raw Water Res.						615-340-00	WAI-440-06		615 to Waiola	615 to Waiola
MPU Kaluakoi Project Meter	7	804,284,400	819,836,400	16,725,600	110%	18,398				\$18,398.00
	ľ		old rate	9,803	110%	10,783		\$1.00	\$9,803.00	I
		1	new rate	8,595	110%	9,455		\$1.90	\$16,331.00	1
Plus Moana Makani	J	82,816,500	83,990,100			610-340-00	100-440-05		610 to MPU	610 to MPU
M'Ioa Puunana 8" Mtr	1	865,464,000	868,451,000	1,813,400	110%	1,995		\$2.78	\$5,545.00	\$1,995.00
Water Sale (Mloa Proj Mtr)	_	82,816,500	83,990,100			610-340-00	100-440-03		610 to Waiola	610 to Waiola
Manawainui Resv.	7	 1								
Industrial Park	1	15,984,700	16,231,500	246,800	110%	271		\$2.78	\$755.00	\$271.00
2" Clearwell Effluent] '					610-340-00	100-440-22		610 to Waiola	610 to Waiola
Book 9	,	From Cubic								
Industrial Ag	1	From Cubic Total metered	Г	616,000	110%	678		\$2.78	\$1,884.00	\$678.00
masoniai ng	<u> </u>	TOTAL TIPOTETE	<u>\</u>	0,0,000	,	615-340-00	100-440-04		615 to Walola	615 to Waiola

Note: Book 210-10 gailons are at Rete9. DO NOT multiply by new rate For September 2008, only 8,595,000 gallons are at new rate.

For September 2008, only 8,595,000 gallons are at new Report #32

\$27,534.00

\$23,997.00

Actual rev incr > MPU \$7,736.00

\$51,531.00

Stort Land Mills Harris Land Land Constitute	dibidirendis.	WATER HOME TO SEE	N TYSYYTYTYYYY	Nonthy Water Values	DA BARRIO		ALEXA CHAR		Revised ****	edleckal pelulosedd
		Readi			6 Adjust.			Rate		
Meters		09/26/08	10/24/08	Use	Factor	in 1,000's	per	1,000	Value	Value
Mountain Water to Puu	New Mtr	80,270,400	87,371,700	7,101,300	100%			\$2.78	\$19,742.00	\$6,192.00
Nana Raw Water Res.		_				615-340-00	WAI-440-06		615 to Waiola	615 to Waiola
MPU Kaluakoi Project Meter		819,836,400	832,889,400	13,754,600	110%	15,130		\$1.90	\$28,747.00	\$18,398.00
Plus Moana Makani		83,990,100	84,691,700			610-340-00	100-440-05		610 to MPU	610 to MPU
M'Ioa Puunana 8" Mtr		868,451,000	870,591,000	1,438,400	110%	1,582		\$2.78	\$4,399.00	\$1,995.00
Water Sale (Mloa Proj Mtr)		83,990,100	84,691,700			610-340-00	100-440-03		610 to Waiola	610 to Waiola
Manawainui Resv.	7		•							
Industrial Park	1	16,231,500	16,661,800	430,300	110%		400 440 00	\$2.78	\$1,316.00	· ·
2" Clearwell Effluent						610-340-00	100-440-22		610 to Waiola	610 to Waiola
Boak 9	7	From Cubic								
Industrial Ag		Total metered		370,000	110%			\$2.78	\$1,131.00	•
						615-340-00	100-440-04		615 to Waiola	615 to Waiola

Note: Book 210-10 gallons are at Rete9. DO NOT multiply by new rate For September 2008, only 8,595,000 gallons are at new rate.

		Readi	ngs	9	ն Adjust.	Sales		Rate	30-No
Meters		10/24/08	11/25/08	Use	Factor	in 1,000's	per	1,000	Value
Mountain Water to Puu	New Mtr	87,371,700	91,468,500	4,096,800	100%	4,097		\$2.78	\$11,389.00
Nana Raw Water Res.						615-340-00	WAI-440-06		615 to Waiola
MPU Kaluakoi Project Meter		832,889,400	842,878,400	10,573,800	110%	11,631		\$1.90	\$22,099.00
Plus Moana Makani		84,691,700	85,276,500			610-340-00	100-440-05		610 to MPU
M'loa Puunana 8" Mtr		870,591,000	872,736,000	1,560,200	110%	1,716		\$2.78	\$4,771.00
Water Sale (Mloa Proj Mtr)		84,691,700	85,276,500			610-340-00	100-440-03		610 to Waiola
Manawainui Resv.									
ndustrial Park 2" Clearwell Effluent		16,661,800	17,191,000	529,200	110%	582 610-340-00	100-440-22	\$2.78	\$1,618.00 610 to Waiola
Book 9 Industrial Ag	li i	From Cubic Total metered		244,000	110%	268		\$2.78	\$746.0
			I	277,000		615-340-00	100-440-04		615 to Waiola

Note: Book 210-10 gallons are at Rete9. DO NOT multiply by new rate For September 2008, only 8,595,000 gallons are at new rate.

		Readi	ngs	%	Adjust.	Sales	i	Rate	30-No
Meters		11/25/08	12/26/08	Use	Factor	in 1,000's	per 1	,000	Value
Mountain Water to Puu	New Mtr	91,468,500	92,626,300	1,157,800	100%	1,158	\$	2.78	\$3,219.00
Nana Raw Water Res.						615-340-00	WAI-440-06	6	15 to Waiola
MPU Kaluakoi Project Meter	7 [842,878,400	848,934,400	6,465,200	110%	7,112	s	1.90 _	\$13,512.0
Plus Moana Makani		85,276,500	85,685,700			610-340-00	100-440-05	6	10 to MPU
M'Ioa Puunana 8" Mtr		872,736,000	874,427,000	1,281,800	110%	1,410	\$	2.78	\$3,920.0
Water Sale (Mloa Proj Mtr)		85,276,500	85,685,700			610-340-00	100-440-03	6	10 to Waiola
Manawainui Resv.	7								
ndustrial Park 2" Clearwell Effluent	l l	17,191,000	17,497,400	306,400	110%	337 610-340-00	100-440-22	2.78	\$937.00 10 to Waiola
Clearwen Emuent	— J					010-340-00	100-440-22		IN IO TERNIO
300k 9	7	From Cubic							
ndustrial Ag		Total metered		189,000	110%	208	\$	2.78	\$578.0

Note: Book 210-10 gallons are at Rete9. DO NOT multiply by new rate For September 2008, only 8,595,000 gallons are at new rate.

		Readi	ings	%	6 Adjust.	Sales	R	ate 30-No
Meters		12/26/08	01/26/09	Use	Factor	in 1,000's	per 1,0	00 Value
Mountain Water to Puu Nana Raw Water Res.	New Mtr	92,626,300	93,444,000	817,700	100%	818 615-340-00	\$2 WAI-440-06	78 \$2,273. 0 615 to Wa iola
MPU Kaluakoi Project Meter Plus Moana Makani		848,934,400 85,685,700	854,679,400 86,106,500	6,165,800	110%	6,782 610-340-00	\$1. 100-440-05	90 \$12,887.0
M'Ioa Puunana 8" Mtr Water Sale (Mloa Proj Mtr)		874,427,000 85,685,700	876,205,000 86,106,500	1,357,200	110%	1,493 610-340-00	\$2. 100-440-03	78 \$4,150.0 610 to Waiola
Manawainui Resv. Industrial Park 2" Clearwell Effluent		17,497,400	17,982,000	484,600	110%	533 610-340-00	\$2. 100-440-22	78 \$1,482.00 610 to Waiola
Book 9 Industrial Ag		From Cubic Total metered		305,000	110%	336	\$2.	78 \$933.0 (

		Readi	ngs	9/	6 Adjust.	Sales	Rate	30-No
Meters		01/26/09	02/25/09	Use	Factor	in 1,000's	per 1,000) Value
Mountain Water to Puu Nana Raw Water Res.	New Mtr	93,444,000	95,349,900	1,905,900	100%	1,906 615-340-00	\$2.78 WAI-440-06	\$5,298.00 Waiola to MPU
MPU Kaluakoi Project Meter Plus Moana Makani		854,679,400 86,106,500	862,300,400 86,567,100	8,081,600	110%	8,890 610-340-00	\$1.90 100-440-05	\$16,891.00 MPU
M'Ioa Puunana 8" Mtr Water Sale (Mloa Proj Mtr)		876,205,000 86,106,500	877,918,000 86,56 7 ,100	1,252,400	110%	1,378 610-340-00	\$2.78 100-440-03	\$3,830.00 MPU to Waiola
Manawainui Resv. Industrial Park 2" Clearwell Effluent		17,982,000	18,445,400	463,400	110%	510 610-340-00	\$2.78 100-440-22	\$1,417.00 MPU to Waiola
Book 9 Industrial Ag		From Cubic Total metered		245,000	110%	270	\$2.78	\$749.00

		Readi	ings	9/	6 Adjust.	Sales		Rate		
Meters		02/25/09	03/25/09	Use	Factor	in 1,000's	per	1,000	Va	lue
Mountain Water to Puu Nana Raw Water Res.	New Mtr	95,349,900	99,385,400	4,035,500	100%	4,036 615-340-00	WAI-440-06	\$2.78	Waiola	\$11,219.0
MPU Kaluakoi Project Meter Plus Moana Makani		862,300,400 86,567,100	870,647,400 87,102,200	8,882,100	110%	9,770 610-340-00	100-440-05	\$1.90	MPU	\$18,564.0
M'Ioa Puunana 8" Mtr Water Sale (MIoa Proj Mtr)		877,918,000 86,567,100	880,030,000 87,102,200	1,576,900	110%	1,735 610-340-00	100-440-03	\$2.78	MPU to Wa	\$4,822.00 iola
Manawainui Resv. Industrial Park 2" Clearwell Effluent		18,445,400	18,650,900	205,500	110%	226 610-340-00	100-440-22	\$2.78	MPU to Wa	\$628.0 iola
Book 9 Industrial Ag		From Cubic Total metered		299,000	110%	329		\$2.78		\$914.0

2.45.46.26.45.45.45.45.45.45.45.45.45.45.45.45.45.								
Meters		Readi 03/25/09	04/24/09	Use	Adjust. Factor	in 1,000's		-
Mountain Water to Puu Nana Raw Water Res.	New Mtr	99,385,400	103,267,400	3,882,000	100%	3,882 615-340-00	\$2.70 WAI-440-06	\$10,792.00 Walola
MPU Kaluakoi Project Meter Plus Moana Makani		870,647,400 87,102,200	881,978,400 87,727,300	11,956,100	110%	13,152 610-340-00	\$1.90 100-440-05	\$24,988.00 MPU
M'Ioa Puunana 8" Mtr Water Sale (Mioa Proj Mtr)		880,030,000 87,102,200	881,978,400 87,727,300	1,323,300	110%	1,456 610-340-00	\$2.76 100-440-03	\$4,047.00 MPU to Waiola
Manawainui Resv. Industrial Park 2" Clearwell Effluent		18,650,900	18,650,900	0	110%	61 0-340-00	\$2.78 100-440-22	\$0.00 MPU to Waiola
Book 9 Industrial Ag		From Cubic Total metered		350,000	110%	385 615-340-00	\$2.78 100-440-04	\$1,070.00 Wajota

MPU Kaluakoi Project Meter 881,978,400 893,053,400 11,807,200 110% 12,988 \$1.90 Plus Moana Makani 87,727,300 88,459,500 610-340-00 100-440-05 M'loa Puunana 8" Mtr Water Sale (Mloa Proj Mtr) 881,978,400 884,632,000 1,921,400 110% 2,114 \$2.78 Manawainui Resv. Industrial Park 18,650,900 18,803,900 153,000 110% 168 \$2.78		Rate	Ra	;	Sales	Adjust.	9/	ngs	Readi		
MPU Kaluakoi Project Meter 881,978,400 893,053,400 11,807,200 110% 12,988 \$1.90	Value	1,000	per 1,0	pei	in 1,000's	Factor	Use	05/26/09	04/24/09		Meters
MPU Kaluakoi Project Meter 881,978,400 893,053,400 11,807,200 110% 12,988 \$1.90 Plus Moana Makani 87,727,300 88,459,500 610-340-00 100-440-05 M'Ioa Puunana 8" Mtr 881,978,400 884,632,000 1,921,400 110% 2,114 \$2.78 Water Sale (Mloa Proj Mtr) 87,727,300 88,459,500 610-340-00 100-440-03 Manawainui Resv. 18,650,900 18,803,900 153,000 110% 168 \$2.78	\$9,241.6	\$2.78			· ·		3,324,200	106,591,600	103,267,400	New Mtr	Mountain Water to Puu
Restrict Restrict	Waiola	Wa	-06	WAI-440-06	615-340-00	+					Nana Raw Water Res.
W'loa Puunana 8" Mtr	\$24,677.	\$1.90	\$ 1.		12,988	110%	11,807,200	893,053,400	881,978,400	— [MPU Kaluakoi Project Meter
Water Sale (Mloa Proj Mtr) 87,727,300 88,459,500 610-340-00 100-440-03 Manawainui Resv. 18,650,900 18,803,900 153,000 110% 168 \$2.78	MPU	MP	05	100-440-05	610-340-00	•		88,459,500	87,727,300		Plus Moana Makani
Manawainui Resv. ndustrial Park 18,650,900 18,803,900 153,000 110% 168 \$2.78	\$5,876.	\$2.78	\$ 2.		2,114	110%	1,921,400	884,632,000	881,978,400		M'Ioa Puunana 8" Mtr
ndustrial Park 18,650,900 18,803,900 153,000 110% 168 \$2.78	MPU to Waiola	MP	03	100-440-03	610-340-00	•		88,459,500	87,727,300		Nater Sale (Mloa Proj Mtr)
										-	Manawainui Resv.
Clearweil Emilient	\$468.0 MPU to Waiola	-		100 440 22			153,000	18,803,900	18,650,900		
	WFO to WEIGH	1011		100-440-22	010-340-00	·					
From Cubic 388,000 110% 427 \$2.78	\$1,187.	52 7R	5 2		427	110%	388 000				

		Readi	ngs	%	6 Adjust.	Sales		Rate	
Meters		05/26/09	06/25/09	Use	Factor	in 1,000's	per	1,000	Value
Mountain Water to Puu Naпа Raw Water Res.	New Mtr	106,591,600	109,524,500	2,932,900	100%	2,933 615-340-00	WAI-440-06	\$2.78	\$8,153.0 Waiola
MPU Kaluakoi Project Meter Plus Moana Makani		893,053,400 88,459,500	905,383,400 89,209,800	13,080,300	110%	14,388 610-340-00	100-440-05	\$1.90	\$27,338.0 MPU
M'Ioa Puunana 8" Mtr Water Sale (Mloa Proj Mtr)		884,632,000 88,459,500	887,070,000 89,209,800	1,687,700	110%	1,856 610-340-00	100-440-03	\$2.78	\$5,161.0 MPU to Waiola
Manawainui Resv. Industrial Park 2" Clearwell Effluent		18,803,900	18,803,900	0	110%	0 610-340-00	100-440-22	\$2.78	\$0.0 MPU to Waiola
Book 9 Touch Ag		From Cubic Total metered		351,000	110%	386		\$2.78	\$1,073.0

Francisco de la constitución de la				Monthy Water Values					na a de la composición dela composición de la co
	· 	Readi	ngs	%	Adjust.	Sales	•	Rate	•
Meters		06/25/09	07/27/09	Use	Factor	in 1,000's	per	1,000	Value
Mountain Water to Puu	New Mtr	109,524,500	113,620,100	4,095,600	100%	4,096		\$2.78	\$11,386.00
Nana Raw Water Res.						615-340-00	WAI-440-06		Waiola
MPU Kaluakol Project Meter	7	905,383,400	917,747,400	13,256,900	110%	14,583		\$1.90	\$27,707.00
Plus Moana Makani		89,209,800	90,102,700			610-340-00	100-440-05		MPU
M'Ioa Puunana 8" Mtr		887,070,000	889,501,000	1,538,100	110%	1,692		\$2.78	\$4,704.00
Water Sale (Mloa Proj Mtr)		89,209,800	90,102,700			610-340-00	100-440-03		MPU to Waiola
Manawainui Resv.									
Industrial Park		18,803,900	19,104,800	300,900	110%		400 440 00	\$2.78	\$920.00
2" Clearwell Effluent						610-340-00	100-440-22		MPU to Waiola
Book 9	—	From Cubic	_						
Industrial Ag		Total metered		328,000	110%	361		\$2.78	\$1,003.00
						615-340-00	100-440-04		Waiola

		Readi	ngs	9/	6 Adjust.	Sales		Rate	
Meters		07/27/09	08/25/09	Use	Factor	in 1,000's	per '	1,000	Value
Mountain Water to Puu	New Mtr	113,620,100	116,929,800	3,309,700	100%	3,310		\$2.78	\$9,201.00
Nana Raw Water Res.						615-340-00	WAI-440-06		Waiola
MPU Kaluakoi Project Meter		917,747,400	929,572,400	12,491,300	110%	13,740		\$1.90	\$26,107.00
Plus Moana Makani		90,102,700	90,769,000			610-340-00	100-440-05	•	MPU
M'Ioa Puunana 8" Mtr	\neg	889,501,000	891,933,000	1,765,700	110%	1,942		\$2.78	\$5,400.00
Water Sale (Mloa Proj Mtr)		90,102,700	90,769,000			610-340-00	100-440-03		MPU to Waiola
Manawainui Resv.		<u> </u>							
ndustrial Park		19,104,800	19,104,800	0	110%	=		\$2.78	\$0.00
2" Clearwell Effluent						610-340-00	100-440-22		MPU to Waiola
Book 9	\neg	From Cubic							
Industrial Ag		Total metered		397,000	110%	437	:	\$2.78	\$1,214.00

		Readi	ngs	%	6 Adjust.	Sales		Rate	
Meters		08/25/09	09/25/09	Use	Factor	in 1,000's	per	1,000	Value
Mountain Water to Puu	New Mtr	116,929,800	120,723,000	3,793,200	100%	3,793		\$2.78	\$10,545.0
Nana Raw Water Res.						615-340-00	WAI-440-06		Waiola
MPU Kaluakoi Project Meter	1	929,572,400	944,450,400	15,775,500	110%	17,353		\$1.90	\$32,971.0
Plus Moana Makani	J	90,769,000	91,666,500			610-340-00	100-440-05		MPU
M'Ioa Puunana 8" Mtr(Proj.Mloa)	1	891,933,000	894,603,000	1,772,500	110%	1,950		\$2.78	\$5,420.0
Water Sale (Mloa Proj Mtr)(Moana Maka	ni)	90,769,000	91,666,500			610-340-00	100-440-03		MPU to Waiola
Manawainui Resv.	1								
ndustrial Park(Manawalnul) 2" Clearwell Effluent	1	19,104,800	19,351,000	246,200	110%	271 610-340-00	100-440-22	\$2.78	\$753.0 MPU to Waiola
Clearweit Eindeitt	J					010-0-0-0	100-4-40-22		W. O to Walola
Book 9		From Cubic							
ndustrial Ag	1	Total metered	i	543,000	110%	597		\$2.78	\$1,660.0

	Readi	ings	9/	6 Adjust.	Sales		Rate	
Meters	09/25/09,	10/26/09	Use	Factor	in 1,000's	per	1,000	Value
Mountain Water to Puu New M Nana Raw Water Res.	ltr 120,723,000	124,787,300	4,064,300	100%	4,064 615-340-00	WAI-440-06	\$2.78	\$11,299.0 Waiola
MPU Kaluakoi Project Meter Plus Moana Makani(Moana Makani)	944,450,400 91,666,500	957,108,400 92,708,900	13,700,400	110%	15,070 610-340-00	100-440-05	\$1.90	\$28,634.0 MPU
M'Ioa Puunana 8" Mtr(Proj.Mloa) Water Sale (Mloa Proj Mtr)(Moana Makani)	894,603,000 91,666,500	897,265,000 92,708,900	1,619,600	110%	1,782 610-340-00	100-440-03	\$2.78	\$4,953.0 MPU to Waiola
Manawainul Resv. Industrial Park(Manawainui) 2'' Clearwell Effluent	19,351,000	19,575,000	224,000	110%	246 610-340 - 00	100-440-22	\$2.78	\$685.0 MPU to Waiola
Book 9	From Cubic Total metered	Γ	318,000	110%	350		\$2.78	\$972.0

tocked all transportation from the all eligibles			arasabil	Monthy Water Values				agarar		
		Readi			Adjust.	Sales		Rate		
Meters		09/25/09	10/26/09	Use	Factor	in 1,000's	per	1,000	Value	Value
Mountain Water to Puu Ne	ew Mtr	120,723,000	124,787,300	4,064,300	100%	4,064		\$2.78	\$11,299.00	\$10,545.00
Nana Raw Water Res.				_	•	615-340-00	WAI-440-06		Waioła	Waiola
MPU Kaluakoi Project Meter	Γ	944,450,400	957,108,400	13,700,400	110%	15,070		\$1.90	\$28,634.00	\$32,971.00
Plus Moana Makani(Moana Makani)		91,666,500	92,708,900	•	(610-340-00	100-440-05		MPU	MPU
M'Ioa Puunana 8" Mtr(Proj.Mloa)	Г	894,603,000	897,265,000	1,619,600	110%	1,782		\$2.78	\$4,953.00	\$5,420.00
Water Sale (Mloa Proj Mtr)(Moana Makani)	_	91,666,500	92,708,900	•	(610-340-00	100-440-03		MPU to Waiola	MPU to Waiola
Manawainui Resv.	Г	<u> </u>		1						
Industrial Park(Manawainui)		19,351,000	19,575,000	224,000	110%	246		\$2.78	\$685.00	\$753.00
2" Clearwell Effluent					•	610-340-00	100-440-22		MPU to Waiola	MPU to Waiola
Davis O.		O. Li-					•			
Book 9 Industrial Ag	•	From Cubic Fotal metered		318,000	110%	350		\$2.78	\$972.00	\$1,660.00
					(615-340-00	100-440-04			Waiola

ATTACHMENT WMA-SIR-105l

DAILY READINGS

#	Location	Previous Reading	Current Reading	Total Usage	Heights	CL2
17	Manawainui Tank	196892	196892	-0- <u>00</u>	10'	
11	Well #17	774473	774473	000		\$1.50
	MIS	903258	903258	000	Art are	
	Kualapuu Res.	90848	90891	43 000	8.	
	Kipu Tanks	474437	474437	-0 <u>00</u>	13"	
	Kualapuu/Kipu	75579	75579	-o- 00		
	to Hawaiian Homes	56489	56489	-0- <u>00</u>		
12	Mahana Pump	089005	089005	-0- 000	4:555 27.00	(2)/ <u>(1)</u>
13	Puunana Raw Water				151	
18/19	Puunana Ag Tank	314994	316234	1240 00	8.	
16	Maunaloa Res.					
14	Project Maunaloa	901094	901182	88 900		200 SEC. 1
20	Kaluakoi 8"	917441	918148	701 000	322703	
20	Kaluakoi 2"	533654	553654	-0- <u>00</u>		
15	Moana Makani	945909	946345	436 00		
21	Puu Okoli Tank				1916	
22	Mountain Water	3/1080	312622	1542 00		31576
	Airport Road					
	Animal Pen Road		Maria Maria		3 2 X 1 X X	
	Dixie Road					
	P. Park					
	Kualapuu WWTP	NOT WORKING			De V	
	Maunaloa WWTP	NOT WORKING				
\aupo	a Beach Village	487486	487486	~~~	\$3.4.5°	13.5

20/10 11 0002200000 YOU DELL OF HO DEED THAT

DAILY READINGS

Date: 12-70-09 Reader: Bernard Juario

#	Location	Previous Reading	Current Reading	Total Usage	Heights	CL2
17	Manawainui Tank	196892	196892	-0- 00	10'	 -
11	Well #17	774473	774473	-0 000		
	MIS	903258	903258	<u> </u>		7 3 4 4 5
	Kualapuu Res.	90802	90848	46 000	9'	
	Kipu Tanks	474437	474487	- <i>o</i> - 00	11'	
	Kualapuu/Kipu	75579	75579	-0- <u>00</u>	STATE OF THE PARTY	
	to Hawaiian Homes	56489	56489	<u>00</u>	X 62.55	
12	Mahana Pump	088430	089005	575 000		
13	Puunana Raw Water				17	
18/19	Puunana Ag Tank	313784	314994	1210 00	8)
16	Maunaloa Res.				20'	
14	Project Maunaloa	901006	901094	88 <u>oo</u> o	3 333	
20	Kaluakoi 8"	916834	917441	607 000	3.3.2.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3	227
20	Kaluakoi 2"	553654	553654	-0 00		(E)28
15	Moana Makani	945474	945909	435		
21	Puu Okoli Tank				15'8	1
22	Mountain Water	309574	311080	1506		
	Airport Road					
	Animal Pen Road	V. (1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1				
	Dixie Road					
	P. Park				3370 FE	
	Kualapuu WWTP	NOT WORKING			Z E	
	Maunaloa WWTP	NOT WORKING			2.2	Carry V.
	a Beach Village	48.7486	487486	-0-		1000

NOTES.

DOCKET NO. 2009-0048

WMA-SIR-106 Re: Response to WMA-IR-211

a. Please confirm that the Company has not allocated expenses for the test year, as shown on lines 8 through 25 of Exhibit 10, into fixed and variable expense categories.

RESPONSE:

MPL has not made any such charges to MPU during the test year to date and does not currently plan to make any such charges for the remainder of the test year or for the foreseeable future following the end of the test year.

b. Please state if the Company intends to provide an allocation of said expenses into fixed and variable expense categories.
 If so, when will such allocations be furnished? If not, please explain why the Company cannot provide such an allocation.
 Please provide the bases for the allocator/allocations.

RESPONSE:

MPU has not prepared such an analysis and is not currently preparing such an analysis. MPU is not requesting a change in its rate structure and there fore does not believe such a cost of service is required. In addition, MPU does not believe the cost of preparing such a study, without planning to request a change in its rate design would be warranted. The Company believes that such an analysis can be prepared by WMA if one is desired.

SPONSOR: Robert O'Brien

DOCKET NO. 2009-0048

WMA-SIR-107 Re: Response to WMA-IR-212

a. The "Specifications" for the Puunana Water Treatment
Plant's Trimite Filter units, provided in MPU's response to
CA-IR-7 (Attachment CA-IR-7b) do not provide any
indications of the anticipated water losses and/or plant
efficiency (i.e., treated water out/raw water in). Please
provide the anticipated water loss at this function.

RESPONSE:

See Attachment WMA-SIR-107a.

 b. Losses at the Puunana Water Treatment Plant are stated to be approximately 8% to 10% in MPU's response to WMA IR-102.

However, the calculated losses shown on Workpaper MPU 10.2, page 3 of 5, line 4 represent 16.3% of the water lifted from the Mahana Pump Station ([31,188/190,992] x 100%). Please explain the apparent inconsistency.

RESPONSE:

The difference could be caused by the difference in the measurement periods and / or losses occurring between the Mahana Pump Station and the water released from the PWTP. The Company has not made any additional calculations to determine what portions of the difference between the stated percentages.

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WMA-SIR-107 (cont.)

c. Please provide the calculations and data base used to

determine the losses shown on lines 2 and 4.

RESPONSE: See Attachment WMA-SIR-107c.

d. Please provide the calculations and the data base used to

determine the losses shown on line 13.

RESPONSE: See Attachment WMA-SIR-107c.

e. Please provide an updated version of Workpaper MPU 10.2

incorporating all changes/corrections to date and the most

recent diesel fuel costs/invoices.

RESPONSE: See Attachment CA-IR-36a.

SPONSOR: Robert O'Brien

ATTACHMENT WMA-SIR-107a

Molokai Public Utilities Puunana Water Treatment Plant Calculations for Overall Plant Efficiency

Overall plant efficiency is primarily affected by two seasonal raw water quality variables: turbidity, and temperature. In the warmer months the raw water tends to be less turbid and the higher temperature makes the coagulants more reactive. The floc, turbidity and coagulant, tends to be larger, more adhesive and the clarifiers do most of the work. In the cooler months the more turbid and cooler water requires higher coagulant doses. But the floc is smaller and less adhesive. This leads to faster solids loading of the clarifiers and filters. Subsequently they must be flushed and backwashed more often. In either season the chemical dosing is optimized to achieve the highest water quality with long clarifier/filter runs while preventing breakthrough at the end of the runs. The length of the clarifier runs is determined by the rate of solids loading and observed breakthrough. Then the timers in the programmable logic controller, PLC, are adjusted to automatically flush the clarifier at preset intervals. The length of the filter runs is determined by the headloss or back pressure in the filter which relates to the solids loading or by the effluent turbidity which would indicate breakthrough. Both parameters are monitored by the PLC and either will trigger an automatic backwash.

Following are two sets of calculations for overall plant efficiency during the two seasons. Unless otherwise stated, the times for each step of the clarifier flushes and back washes are averages of the variables used to optimize each operation. The flows are averages of the observed flow from the plant and clearwell effluent flow meters.

Collections common to both sets of calculations
[] Filters operate at an average flow of 310gpm or 18,600gph
[] Clarifiers flush at the filter flow rate of 310gpm for 10 minutes, using raw water (RW)
Backwash pump uses finished water (FW), 250gpm low rate for 4 minutes and
1000gpm high rate for 9 minutes.
[] After backwash, filters run to waste for 4 minutes at 310gpm. Since this is not metered
by the plant effluent meter, for these calculations it is considered raw water (RW).

Conditions common to both sets of calculations

Winter Operations, generally December through February, On average clarifiers flush every 2.5 hours.

a filter runs for 8 hours before loading to preset headloss or turbidity breakthrough: will produce 148,000 gallons FW
will require 3.2 clarifier flushes or 3.2 X 10min X 310gpm = 9,920 gal RW
and one backwash or (4min X 250gpm)+(9min X 1,000gpm) = 10,000 gal FW
4min X 310gpm = 1,240 gal RW
otal raw water: 148,000 + 9,920 + 1,240 = 159,960 gallons
otal finished water: $148,000 - 10,000 = 138,000$ gallons
everall Plant Efficiency: $138,000 * 159.960 = 86.8\%$
a filter runs for 12 hours:
will produce 223,200 gallons FW
will require 4.8 clarifier flushes or 14,880 gal RW
one backwash or 10,000gal FW and 1,240 gal RW
otal raw water: 223,200 + 14,880 + 1,240 = 239,320 gallons
otal finished water: 223,200 - 10,000 + 213,200 gallons
overall Plant Efficiency: 213,299 * 239,320 = 89.1%
f a filter runs for 16 hours:
will produce 297,600 gallons
will require 6.4 clarifier flushes or 19,840 gal RW
one backwash or 10,000 gal FW and 1,240 gal RW
otal raw water: $297,600 + 19,840 + 1,240 = 318,680$ gallons
otal finished water: 297,600 - 10,000 = 287,600 gallons
Overall Plant Efficiency: 287.600 * 318.680 = 90.2%

We generally don't see filter runs in excess of 16 hours this time of year.

Spring, Summer, and Fall Operations
On average clarifiers flush every 3 hours.

If a filter runs 12 hours before headloss reaches setpoint or turbidity breakthrough
[] will produce 223,200 gallons FW [] will require 4 clarifier flushes or 4 X 10min X 310gpm = 12,400 gallons RW [] one backwash or (4min X 250gpm) + (9min X 1,000gpm) = 10,000 gal FW
$4\min X \ 310 \text{gpm} = 1,240 \ \text{RW}$
Total raw water: $223,200 + 12,400 + 1,240 = 236,840$ gallons Total finished water: $223,200 - 10,000 = 213,200$ gallons
Overall Plant Efficiency: 213,200 * 236,840 = 90.0%
If a filter runs 16 hours [] will produce 297,600 gallons FW
[] will require 5.3 clarifier flushes or 16,430 gallons RW [] one backwash or 10,000 gallons FW and 1,240 gallons RW
Total raw water: $297,600 + 16,430 + 1,240 = 315,270$ gallons Total finished water: $297,600 - 10,000 = 287,600$ gallons Overall Plant Efficiency: $287,600 * 315,270 = 91.2\%$
If a filter runs 20 hours [] will produce 372,000 gallons FW [] will require 6.7 clarifier flushes or 20,700 gallons RW [] one backwash or 10,000gallons FW and 1,240 gallons RW
Total raw water: $372,000 + 20,700 + 1,240 = 393,940$ gallons Total finished water: $372,000 - 10,000 = 362,000$ gallons Overall Plant Efficiency: $362,000 * 393,940 = 91.9\%$
If a filter runs 24 hours [] will produce 446,400 gallons finished water [] will require 8 flushes or 24,800 gallons RW [] one backwash or 10,000 gallons FW and 1,240 gallons RW
Total raw water: $446,400 + 24,800 + 1,240 = 472,440$ gallons Total finished water: $446,400 - 10,000 = 436,400$ gallons Overall Plant Efficiency: $436,400 * 472,440 = 92.4\%$

ATTACHMENT WMA-SIR-107c

Attachment WMA-SIR-107c

Molokai Public Utilities, Inc. Docket No. 2009-0048 Calculation of Water Loss (Gallons in Thousands)

		[1]	[2]
Line #	Description	Reference Or Factor	12-Months Ended 3/31/07
Wate	r Production		
1	Well 17 Gross Pumpage		334,984
2	Water Re-directed to Kualapuu	-	(23,693)
3	Net Delivered to MIS	L1+L2	311,291
4	MIS Retention	10.0%	(31,129)
5	Net to MPU System	L1+L4	303,855
6 7 8 9	Change in Stored Water Inventory Mualapuu Reservoir MIS Puunana Raw Water Puu Okole reservoir Total Change in Storage	Sum L 6 to L 9	(20) (700) (241) (220) (1,181)
11	Net to Customers	L 5 + L 10	302,674
Wate	r Use		
12 13 14 15 16 17	Kaluakoi Internal Condos Park Residential Sub-total Kualapuu Water Treatment Plant Backwash	Sum L 12 to L 15	89,380 39,552 6,105 69,450 204,487 19,738 46,206
19	Total Usage	Sum L 16 to L 18	270,431
20	Total Lost & Unaccounted	L 11 - L 19	32,243
21	Percent L&U		9.6%

DOCKET NO. 2009-0048

WMA-SIR-108 Re: Response to WMA-IR-213

a. MPU's response to CA-IR-2 omits any mention of plant or

equipment items served through the Palaau meter. MPU's

response to WMA-IR-213 appears overly vague and non-

responsive.

Specifically, please identify each plant or equipment item

served through the Palaau meter by name, equipment

nameplate rating (hp, kw, etc.) and precise geographic

location.

RESPONSE: The pump served by the Palaau meter recycles water at that

location and does not provide service to any other

equipment.

b. Show equipment/plant locations on a map of the Company's

facilities as used in MPU's response to CA-IR-6 (Attachment

CA-IR-6a, Part B) or on MPU's service territory map.

RESPONSE:

See response to part (a) above.

SPONSOR:

Robert O'Brien

DOCKET NO. 2009-0048

WMA-SIR-109 Re: Response to WMA-IR-301

a. Please confirm for the record that the Company does not have construction/record drawings, specifications and similar documentation for the storage reservoirs, tanks, distribution pipelines and related items that constitute its physical plant/facilities. If any such documents exist, please provide all of them.

RESPONSE:

The Company can confirm that, other than the construction and other supporting data for the water treatment plant, the Company does not have specifications or other documentation for the remaining plant and equipment.

b. MPU's response concerning the age of the plant and facilities is incomplete. What are the ages of the storage reservoirs, tanks, distribution pipelines and other assets that were acquired in 2001 and are now fully depreciated?

RESPONSE:

To the best of the Company's knowledge, the majority of the plant serving customers, which would include Well 17, transportation and distribution pipes, reservoirs, tanks and other facilities were constructed during the 1970s and are fully depreciated at this time. The Puunana water treatment plant was initially constructed in 1997 and upgraded in 2005.

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WMA-SIR-109 (cont.)

c. Please provide references to all recorded easements

granted to MPU and its predecessors for Company

assets/facilities located on property owned by MPL and its

subsidiaries. Please provide copies of any unrecorded

easements.

RESPONSE:

The Company is not aware of any such easements.

d. Please provide references to all recorded easements

granted to MPU and its predecessors for pipelines and

related equipment within or adjacent to road rights of way.

Please provide copies of any unrecorded easements.

RESPONSE:

The Company does not have a listing or single point of

reference for such easements. The Company is currently

reviewing its records to determine what recorded and

unrecorded easements exist to respond to this information

request and will provide such data as soon as it becomes

available.

SPONSOR:

Robert O'Brien

DOCKET NO. 2009-0048

WMA-SIR-110 Re: Response to WMA-IR-303

a. Please provide calculations and supporting data used to determine MPU's share of the cost for "certain maintenance equipment, fencing around certain reservoirs and portions of the water treatment plant and the structures at Well 17".

RESPONSE:

The Company objects to this continuing line of inquiry. The \$430 per month intercompany rental charge from MPL to MPU is not included in the test year expenses and does not have any impact on the revenue requirement in this proceeding. At this time the Company does not plan to include these rental charges in its revenue requirement in the test year or beyond.

b. Please confirm that Well 17 and the Puunana Water Treatment Plant are, in fact, owned by the Company as stated in MPU's response to WMA-IR-301. If not, please identify each and every component, item, plant, or related facility that is owned by MPL and/or its subsidiaries together with the recorded cost and/or book value thereof.

RESPONSE:

This will confirm that Well 17 and the PWTP are owned by MPU. MPU also owns all of the facilities and equipment serving Well 17, with the exception of the roof at Well 17 which was constructed by MPL in 1998, paid for by MPL and

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WMA-SIR-110 (cont.)

not transferred to MPU. The Company will make the transfer of the asset from MPL to MPU, but the net asset value is close to zero since it was depreciated over a 10-year period.

c. Please identify each and every MPL asset or cost record by name, initial cost and/or book value for which shared rental costs are claimed.

RESPONSE:

See response to WMA-SIR-110a.

d. Does MPL intend to claim these or other rental charges in the test year and beyond?

RESPONSE:

See response to WMA-SIR-110a.

e. Does MPU intend to pay such rental charges in the test year and beyond? If so, when/where will said rental payments be shown or included in the test year accounting documents (Exhibit MPU 10)?

RESPONSE:

See response to WMA-SIR-110a.

SPONSOR:

Robert O'Brien

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WMA-SIR-111 Re: Response to WMA-IR-401

Please list routine operation and maintenance activities
 performed by Company personnel on a daily basis.

RESPONSE:

The operation and maintenance activities performed by the Company on a routine basis (daily, weekly, monthly) include the monitoring of tanks and reservoirs, monitoring and operations at the water treatment plant, observing and making all necessary pump and valve adjustments, maintenance on Well 17, meter readings, ground maintenance, and receipt, distribution and injections of chemicals to required locations and sites.

b. Please list routine operation and maintenance activities performed by Company personnel on an as needed basis.

RESPONSE:

The operation and maintenance activities performed on an as needed basis (routine only in that these activities recur, but not necessarily on a daily, weekly or monthly scheduled basis) include leak repairs, lateral replacements, pump adjustments or failures, emergency call-outs; responding to customer service requirements, and flushing to improve water quality.

c. Does the Puunana Water Treatment Plant operate continuously (24/7) without full time monitoring/intervention?

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WMA-SIR-111 (cont.)

RESPONSE:

The PWTP normally operates 24 hours per day for four or five days per week.

d. Describe the procedures, methods and/or criteria used to establish the run times for the Mahana Pump Station and the Puunana Water Treatment Plant. That is, who actually determines the schedule of operations for the Mahana Pump Station and the Puunana Water Treatment Plant, and what criteria, methods or measurements are employed to develop/formulate said schedules?

RESPONSE:

The operations of the Mahana Pump Station and the PWTP are scheduled and set on a manual basis. Both schedules are set on a weekly basis to run automatically subject to change as required daily. The weekly schedules are based on anticipated usage and reservoir and tank levels, which are also reviewed daily to determine if adjustments are required.

e. Are the operating schedules changed/modified frequently (i.e., daily, twice a week, weekly, etc.)?

RESPONSE:

The Mahana Pump Station schedule is preset on a weekly schedule each Monday. Normally the pumps run between six to eight hours per day for three to four days. The

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WMA-SIR-111 (cont.)

Company has the ability to change that schedule depending on the reservoir and tank levels, customer usage and other daily activities. The PWTP schedule is also set on Monday to operate through Thursday or Friday depending on anticipated customer usage and levels in the reservoirs and tanks. The Company can change this preset operation level at any time to increase or decrease the operating time.

f. For example, is the Mahana Pump Station programmed to operate every day, every other day, twice a week, etc.?

RESPONSE:

See response to WMA-SIR-110e.

g. How long does it run whenever it operates? How often are these parameters changed?

RESPONSE:

See response to WMA-SIR-110e.

h. How is the pump's operation monitored? That is, did it start when it should and run for the complete programmed interval?

RESPONSE:

The Mahana Pump and the PWTP are scheduled to operate and run automatically based on the schedule established and they are monitored daily. In addition, both the Mahana Pump and the PWTP have alarm systems that notify the

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WMA-SIR-111 (cont.)

proper employees that some fault has occurred and needs to

be responded to.

SPONSOR:

Robert O'Brien

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WMA-SIR-112 Re: Response to WMA-IR-402

Usage data provided in Attachment WMA-IR-402f shows a a. remarkably strong upward trend from December 2008 (420,800 gallons) through October 2009 (1,042,400 gallons). However, this increasing trend contradicts the oral testimony of several homeowners within the Moana Makani subdivision, presented at the public hearing held in Kaunakakai on September 3, 2009. The public hearing record will confirm testimony to the effect that the increased price of water had forced several owners to cease irrigation of private orchards and crops. Yet, the metered deliveries through the Moana Makani Bypass line in October 2009 250% of the metered were more than usage in December 2008. Please explain these apparent inconsistencies.

RESPONSE:

The comparison of December 2008 to October 2009 is not a valid or realistic comparison. A valid comparison of customer usage is to use the customer usage in October 2007 which was 1,468,600 gallons and the customer usage in October 2008, which dropped to 717,200 gallons. The Company believes that this significant drop of over 50% was most likely due to the temporary rate increase approved by the

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WMA-SIR-112 (cont.)

Commission effective September 2008. The usage in October 2009 of 1,042,400 gallons is also a decrease from the October 2007 usage of 1,468,800 of approximately 30% showing that the decrease in usage was continuing. Some of the increase in October 2009 over October 2008 could be due to a partial return to old usage patterns and/or to change in weather during those periods.

 In its response to WMA-IR-403e, the Company states that it provides service to 11 customers in the Moana Makani service area.

In PUC Docket No. 2002-0371, the Company's response to CA-IR-5 states that all but two of the lots in the Moana Makani subdivision would be served via the Bypass Line and, at that time, five (5) MPU customers at higher elevations within the Papohaku Ranchlands subdivision were also connected to the Moana Makani delivery system. Please determine all of the lots/parcels that would be served from the Moana Makani Bypass Line at ultimate build out, and identify each lot by number on a map of the subdivisions (i.e., 30 of the 32 lots within the Moana Makani subdivision, plus a certain number of lots at higher elevations within the

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WMA-SIR-112 (cont.)

Papohaku Ranchlands subdivision).

RESPONSE:

See Attachment WMA-SIR-112b

c. Provide the monthly billings for each lot/parcel served from the Moana Makani Bypass Line during the period from

January 2006 through November 2009.

RESPONSE:

The Company does not have monthly billing data for each customer readily available. As described in response to several information requests, the Company has only a monthly billing record of approximately 60 pages and would have to review each monthly billing record to determine the monthly usage for each customer which would be unduly burdensome. The Company is willing to allow WMA to review these monthly billing records at the Company's office under the appropriate confidentiality agreement to list the monthly usage for each customer.

SPONSOR:

Robert O'Brien

ATTACHMENT WMA-SIR-112b

Attachment WMA-SIR-112b

U01330 . 10:03:30 MOLOKAI PROPERTIES LIMITED ROUTE SHEETS

PAGE: 1 12-11-2009

MOANA MAKANI

BOOK: 202 READING DATE:

WMA112B

ACCOUNT	NAME SERVICE ADDRESS	METER-NIMB SEQUENCE	SERV-TYPE PER3-USAGE METER LOCATION	PER2-USAGE	PER1-USAGE	PREV-READ	CURR-READ
103	LC #28 Moana Makani	02	WATER				
104	LC29 KOANA MAKANI	02	WATER			795	
166	LC186/LOT 61 TMK: 5-1-006-135	02	WATER				
201	LC 30 MOANA MAKANI	02	WATER		·	745	
261	31MM MOANA MAKANI SUBDIVISION	02	WATER 19	5 14	4 11	920	
270	40MM MOANA MAKANI SUBDIVISION	02	WATER				
281	42MM MOANA MAKANI SUBDIVISION	02	WATER 2	1 1!	5 16	1155	····
290	43MM MOANA MAKANI SUBDIVISION	02	WATER 4	9 8	3 95	6951	
301		02	WATER 1	9 1	6 11	2598	

DEC 14 00 100 00140 (BI 10000011 MINON 1811N OFF TO 111N NO. DOCUMENT WMA-SIR-112b

U01330 - 10:03:30 MOLOKAI PROPERTIES LIMITED

ROUTE SHEBTS MOANA MAKANI

PAGE: 2

12-11-2009

BOOK: 202 READING DATE:

ACCOUNT	NAME SERVICE ADDRESS	METER-NUMB Sequence	SERV-TYPE PER3-USA	GE PER2-US	AGE PER1-US	AGE PREV	-READ	CURR-READ
	46MM MOANA KAKANI SUBDIVISION							
310		02	WATER	16	13	12	2007	
	50MM MOANA MAKANI SUBDIVISION							
581	LOT 55 / LC 182	02	WATER					
	PAPOHAKU RANCH LANDS							
591	LOT 56 / LC 183	02	WATER					
/10	PAPOHAKU RANCH LANDS		LIA MTPD	10	0	•	0000	
610	LOT 59	02	WATER	12	9	9	2022	
620	PAPOHAKU RANCH LANDS	19179764	WATER					
	LOT #58 / LC #185 TMK #5-1-006-134	01						
621		02	WATER					
	LOT 60 / LC 187 PAPOHAKU RANCH LANDS							
641		02	WATER	87	22	25	2364	
	191A PAPOHAKU RANCH LANDS							
651		02	WATER	61	55	33	6187	

Attachment WMA-SIR-112b

D01330

MCLOKAI PROPERTIES LIMITED

PAGE:

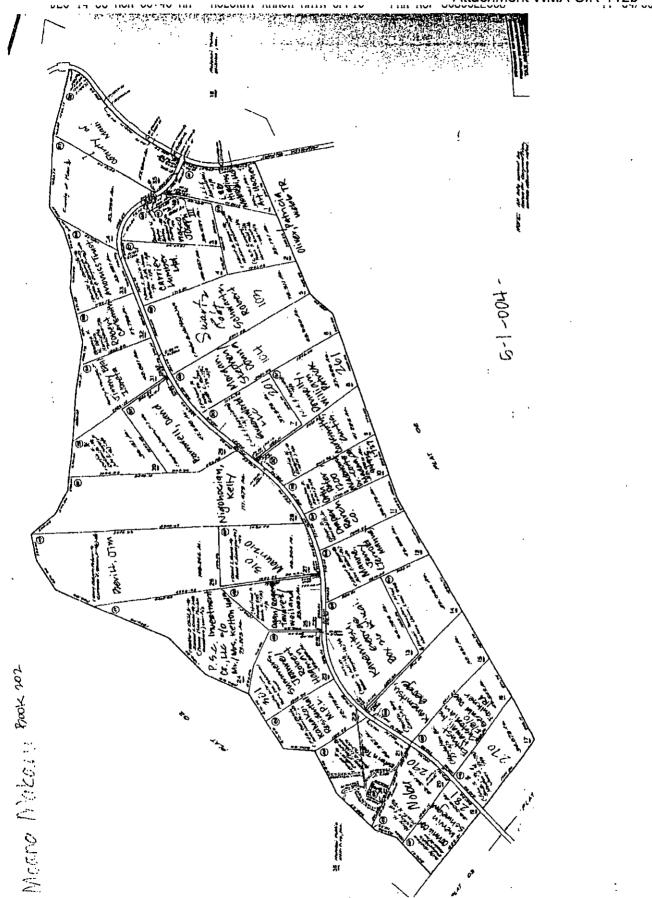
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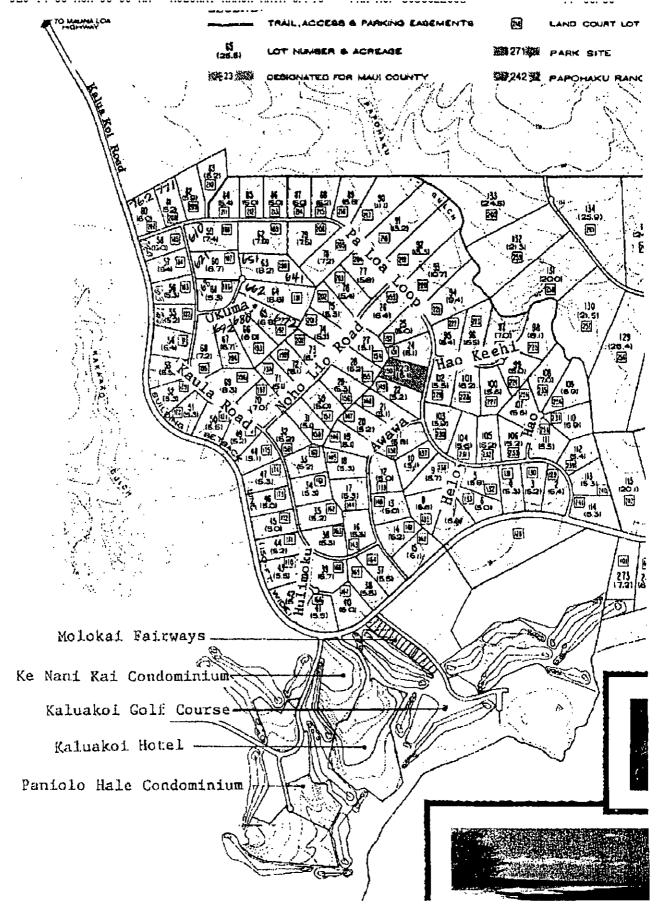
ROUTE SHEETS MOANA NAKANI 12-11-2009

BOOK:	202	READING DA	ATE:
			**=:

PAPOHAKU RANCH LANDS

ACCOUNT	NAME SERVICE ADDRESS	METER-NUMB Sequence	SERV-TYPE METER LOCA		PER2-USAGE	PER1-USAGE	PREV-READ	CURR-READ
	190B PAPOHAKU RANCH LANDS							
662	191 PAPOHAKU RANCH LANDS	02	WATER	84	68	74	38883	
672	LOT 65 / LC 192 OKUMA PAPOHAKU RANCH LANDS	02	WATER					V2.31.31.31.31.31.31.31.31.31.31.31.31.31.
680	LOT 66 / LC 193 PAPOHAKU RANCH LANDS	02	WATER					
692	194 MM PAPOHAKU RANCH LANDS	19179766 02	WATER	:		100	100	
762	LOT 80 / LC 207 PAPOHAKU RANCH LANDS	02	WATER					
771	LOT 81 / LC 208	02	WATER	10	5 8	7	339	





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WMA-SIR-113 Re: Response to WMA-IR-408

a. Exhibit MPU 10.13 is missing from the amended application filed on June 29, 2009. However, the section divider indicates that Exhibit MPU 10 consists of twelve (12) pages and, indeed, the amended application does contain 12 pages in this section.

Furthermore, the list of exhibits filed and incorporated by reference commencing on page 14 of the amended application does not list Exhibit MPU 10.13.

Please confirm that Exhibit MPU 10 consists of the twelve pages actually contained in the amended application. If not, please provide any pages omitted from the amended application and an updated list of the exhibits filed and incorporated by reference.

RESPONSE:

It is confirmed that Exhibit MPU 10 consists of 12 pages.

b. If Exhibit MPU 10 does, in fact, consist of the twelve pages contained in the amended application, please correct the reference citations in Exhibit MPU 10.4, column (7).

RESPONSE:

See Attachment WMA-SIR-113b.

SPONSOR:

ATTACHMENT WMA-SIR-113b

ATTACHMENT WMA-SIR-113b

REVISED EXHIBIT MPU 10.4

Docket No. 2009-0048

Witness O'Brien

Page 1 of 1

Molokai Public Utilities, Inc. Cost of Sales Test Year Ending June 30, 2010

		[1]	[2]	[3]	[4]	[5]	[6]	[7]
Line #	Description	Ref:	6/30/04	6/30/05	6/30/06	6/30/07	6/30/08	Test Year 6/30/10
MPU C	Direct Expenses				•			
1	Chemicals & Testing		\$49,265	\$20,031	\$8,592	\$779	\$112	
2	Chemical Shipping		2,739	3,189	841			
3	Charge from Wailoa for MM				(11,909)			
4	Chemicals							
5	Sub-Total		52,004	23,220	(2,476)	779	112	0
MPL C	harges for MPU - a/c # 610							[B]
6	Salaries & Wages	[A]	23,759	30,127	54,806	64,901	64,198 [a]	Exh 10.1
7	Employee Benefits				31,868	9,743	9,271	Exh 10.1
8	Payroll Taxes				4,707	5,860	5,196	Exh 10.1
9	Electricity				40,636	60,499	66,047	Exh 10.2
10	Repair & Maintenance				9,938	8,992	13,040	Exh 10.8
11	Materials & Supplies				74,371	60,378	67,011	Exh 10.5
12	Vehicle Fuel				4,192	4,102	4,667	Exh 10.5
13	Insurance				10,873	8,424	5,028	Exh 10.9
14	Professional				2,675	1,923	3,875	Exh 10.7
15	Travel				2,123	2,608	5,754	Exh 10.11
16	Postage				1,655	3,172	1,180	Exh 10.11
17	Communications				1,923	1,828	1,306	Exh 10.11
18	Administrative				610	520	297	Exh 10.11
19	Other Charges				524	697	208	Exh 10.11
20	Sub-Total		23,759	30,127	240,901	233,647	247,078	0
21	TOTAL		\$75,763	\$53,347	8,592 \$238,425	\$234,426	\$247,190	\$0

[[]A] Charges incurred by MPL for MPU charged through account # 610. Charges stopped in December 2008

[[]B] Charges after December 2008 made directly to MPU and reflected on Exhibits Noted

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WMA-SIR-114 Re: Response to WMA-IR-501

a. Exhibits MPU 10 and MPU 11 do not identify any revenue from WOM for the costs associated with the treatment of raw water for WOM's customer base in Maunaloa and subsequent delivery of treated water to WOM's distribution facilities.

In its response to WMA-IR-108, MPU asserts that the current rate of \$2.78/TG is believed adequate to recover actual costs of water treatment attributable to WOM's usage of MPU's water treatment plant and facilities.

In its response to WMA-IR-119, MPU has provided an attachment listing measured water flows into the Puunana Raw Water Reservoir and out of the Maunaloa Reservoir. Average delivery of finished water to WOM for the most recent 22 months is approximately 2,450 TG per month.

Consequently, it would appear that MPU should receive approximately \$81,750 per year from WOM for water treatment costs. If it does, explain where the MPU revenues are recorded? If not, explain why not, and further describe what amounts are recorded and the reasons for the differences.

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WMA-SIR-114 (cont.)

RESPONSE:

It was determined that there was no revenue for the water sales to WOM at the Water Treatment Plant included in the MPU pro forma revenue for the test year. It was also determined that there was no expense on WOM for these water deliveries. The revenue charges from the treatment of water for WOM were transferred to MPU from MPL in December 2008 and should have been included in the proforma test year revenue for MPU. Likewise, the expense charges for the treatment of water by MPU for WOM were also reflected on MPU as an expense but not charged to Attachment WMA-SIR-114a shows the revenue MPU. adjustment for pro forma test year revenue at present rates to be reflected on MPU of \$51,886, which is equal to the cost for the water treatment at present rates of \$51,886 which should be reflected on Exhibit WOM 10.3 on line 3 in addition to the \$9,000 which represents the charge for the water for Manawainui. This will result in an increase in revenue at present rates for MPU and a decrease in the revenue increase required. Likewise, the adjustment to be made on WOM will reflect an increase in the expenses for

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WMA-SIR-114 (cont.)

the treated water and an increase in the revenue requirement for WOM,

 Again, please identify corresponding water treatment revenue and cost entries on the two rate applications (i.e., revenue to MPU and cost to WOM).

RESPONSE:

The water treatment revenue for MPU and the water treatment expense for WOM for the test year is shown on Attachment WMA-SIR-114a.

c. Where are water treatment costs at \$2.78 per TG entered on the WOM rate application exhibits and where are water treatment revenues at the same \$2.78 per TG entered on the MPU rate application exhibits.

RESPONSE:

See response to parts (a) and (b) above.

SPONSOR:

ATTACHMENT WMA-SIR-114a

MPU Docket No. 2009-0048

Attachment WMA-SIR-114a

		[1]	[2]	[3]	[4]	[5]	[6]
		Thousa	: 30,	Change in 2010			
Line #	Description	2006	2007	2008	2009	2010	Over (Under) 2009
1	July	n/a	2,146.5	2,288.0	1,966.3	1,538.1	(428.2)
2	August	n/a	3,144.3	2,517.4	2,116.6	1,765.7	(350.9)
3	September	n/a	2,618.5	2,793.6	1,813.4	1,772.5	(40.9)
4	October	2,464.4	2,462.0	2,340.8	1,438.4	1,619.6	181.2
5	November	1,907.5	1,832.9	2,777.5	1,560.2		
6	December	1,651.0	1,972.7	2,003.9	1,281.8		
7	<u>January</u>	1,993.8	1,936.9	2,503.2	1,357.2		
8	February	2,070.6	2,703.0	2,979.1	1,252.4		
9	M arch	1,757.5	2,252.1	2,751.2	1,576.9		
10	April	1,767.0	3,771.1	1,718.3	1,323.3		
11	May	2,117.5	3,890.5	1,618.6	1,921.4		
12	June	2,269.9	3,473.7	2,246.2	1,687.7		
13	Total	=	32,204	28,538	19,296	6,696	(639)
	orma Estilmate of Billit			<u>30, 2010</u>			
14	Eight Months From N		11,960.9				
15	Four Months From Ju		6,695.9				
16	Pro Forma Usage for	18,656.8					
17	Present Rate per Tho	\$ 2.78					
18	Pro Forma Test Year	\$ 51,866					
19	Pro Forma Test Year	r Expense for WOM				\$ 51,866	

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WMA-SIR-115 Re: Response to WMA-IR-505

a. Please provide a detailed accounting of all costs (labor, materials, freight, purchased services, chemicals, etc.) incurred in the operation and maintenance of MPL's three private utilities (i.e., Mountain Water System, Kualapuu Wastewater System and Maunaloa Wastewater System) during the years 2004 through 2008.

RESPONSE:

The Company objects to this SIR because it is outside of the scope of this proceeding. None of these operations are part of MPU and do not have any impact on the rate base, revenue or expenses of MPU.

b. Identify each employee of MPL and its subsidiaries that participated in the operation, maintenance and management of the aforesaid private utilities during the years 2004 through 2008 by name, duties and duration of employment.

RESPONSE:

The Company objects to this SIR because it is outside of the scope of this proceeding. None of these operations are part of MPU and do not have any impact on the rate base, revenue or expenses of MPU.

c. Identify each and every firm contracted to provide personnel or services for the three private utilities during the years

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WMA-SIR-115 (cont.)

2004 through 2008, together with copies of applicable

contracts, purchase orders, etc.

RESPONSE: The Company objects to this SIR because it is outside of the

scope of this proceeding. None of these operations are part

of MPU and do not have any impact on the rate base,

revenue or expenses of MPU.

SPONSOR:

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WMA-SIR-116 Re: Response to WMA-IR-602

a. Please describe the amount of sedimentation that is "normal" in any water system of the Company's age, size and capacity in both qualitative and quantitative terms.

RESPONSE:

Sedimentation normally occurs in all water systems when materials are dislodged from water mains, pipes or other water production, delivery or distribution facilities. some minor particulates infiltrate the water system in the storage and other facilities. These are normally very minor. are usually removed in the treatment process and do not impact on the quality of water delivered to customers. However, where the water mains and other pipes in the delivery system have not been flushed and there is a disturbance to the water in those pipes, some of these particulates (sediment) dislodge and appear in the water provided by the system. In smaller and older systems, this sediment can periodically appear. MPU has not had a recurring problem with sedimentation in its system and takes necessary action when required to address this condition.

b. Provide all studies in the Company's possession regarding sedimentation, infiltration, proposed recommendations, etc.

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WMA-SIR-116 (cont.)

RESPONSE: The Company has not conducted and does not have any

studies regarding sedimentation, infiltration, proposed

recommendations, etc. and therefore cannot provide any in

response to this SIR.

SPONSOR: Robe

DOCKET NO. 2009-0048

WMA-SIR-117 Re: Response to WMA-IR-605

a. Identify/describe the location(s) of the overflow pipe at the Puuokoli storage tank and the associated spillway onto open ground.

RESPONSE:

The overflow pipe is approximately 6 inches below the roof of the tank and drains into the spillway pipe that drains into the ground outside of the storage tank.

b. How often is the Puuokoli storage tank replenished?

RESPONSE:

Currently the storage tank is replenished daily, using a slow fill process to maintain a level of water required for supply operations. The replenishment is done Monday through Friday. Normal operation procedures provide for the daily review of the tank level so replenishment can be accelerated or slowed as required.

c. What parameter or event is monitored to ascertain that the tank should be replenished? (e.g., tank level below ____ ft.)

See response to part (b) above.

RESPONSE:

d. How much water is transferred during a typical replenishment cycle? How long does it take to complete the transfer?

RESPONSE:

The tank is replenished on a continuous basis using the parameters described in response to part (b) above. On

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WMA-SIR-117 (cont.)

average, replenishment of the tank begins on Monday morning and continues at an average flow rate of 0.7 million gallons per day. This provides a full tank of 2.0 million gallons by Friday allowing for outflows to provide for daily customer consumption. The water level in the tank is monitored daily and the replenishment flow rate is modified based on that water level to achieve a full tank by the end of the work week.

e. Is the transfer started and stopped automatically? Or is the transfer controlled by an operator manually opening and closing valves?

RESPONSE:

See responses to parts (b) and (d) above. These procedures minimize the chance of automated valve failure or other events that could cause an overflow.

f. What parameter event is monitored to ascertain that the storage tank replenishment is complete? (e.g., high level switch/alarm, etc.)

RESPONSE:

There is an Altitude Valve and a Level Indicator.

g. Describe the practices, methods and/or controls, if any, that are employed to prevent excess transfers and overflows.

RESPONSE:

See responses to parts (b) and (d) above.

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WMA-SIR-117 (cont.)

h. Identify/describe the location(s) of the overflow pipe at the
 Maunaloa storage reservoir and the associated spillway onto open ground.

RESPONSE:

The overflow pipe is two feet under the base of the roof.

i. How often is the Maunaloa storage tank replenished?

RESPONSE:

The Maunaloa storage facility is replenished when the PWTP is in operation.

j. What parameter or event is monitored to ascertain that the storage tank should be replenished (e.g., tank level below ft.).

RESPONSE:

Since the storage tank is replenished when the PWTP is running, normally four to five days per week, a low storage level is rarely reached. However, if the storage tank reaches a low mark of sixteen feet, replenishment is commenced or accelerated.

k. How much water is transferred during a typical replenishment cycle? How long does it take to complete the transfer?

RESPONSE:

The normal transfer rate is one million gallons per day for the four to five days per week depending on customer consumption.

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WMA-SIR-117 (cont.)

I. Is the transfer started and stopped automatically? (Or, if the transfer is controlled by an operator manually opening and closing valves, explain the governing guidelines.)

RESPONSE:

The process is controlled by an employee matching the flow from the PWPT.

m. What parameter or event is monitored to ascertain that the storage tank replenishment is complete? (e.g., high level switch/alarm, etc.)

RESPONSE:

A visual observation by an employee is the normal monitoring activity.

n. Describe the practices, methods and/or controls, if any, that are employed to prevent excess transfers and overflows.

RESPONSE:

Since the operation of the PWTP is monitored daily when in operations, manual observation is relied on to prevent excess transfers and overflows. In addition there is an automatic shut-down function that prevents overflows. The Company has not experienced an excess transfer or overflow that Company employees are aware of.

SPONSOR: Robert O'Brien

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WMA-SIR-118 Re: Response to WMA-IR-606

a. How often are filter backwash cycles required and/or conducted? Are these determined by operating times (i.e., every ___ days), by the amount of throughput (i.e., after treatment of ___TG) or by some measured parameter such as pressure, flow rate, etc.?

RESPONSE:

Filters are backwashed every 12 to 18 hours during the PWPT operation. Backwash cycles are based on head loss of filters and the water effluent turbidity or water quality.

b. How long does it take to completely clean the filters and restore the effectiveness of the filter media?

RESPONSE:

The backwash process normally takes approximately fifteen minutes from start to finish.

c. Are the filters in all three modules backwashed and/or serviced as one event, or are the filters in each module backwashed and/or serviced on an individual basis?

RESPONSE:

The backwash procedure is performed on each filter separately.

d. What indication(s) or parameters are monitored to ascertain that the backwashing process is actually complete?

RESPONSE:

The water effluent turbidity is observed to determine when the backwash process is completed.

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WMA-SIR-118 (cont.)

e. Describe the practices, methods and/or controls, if any, that are employed to prevent excess backwashing flows or durations.

RESPONSE:

The backwash process is monitored by employees and the control timers in the Programmable Logic Controls are adjusted as necessary to optimize the backwash cycle. The level of turbidity in the backwash water effluent is the control factor to determine if the backwash is complete and avoid excess backwash flows or durations.

f. How much water is used during one filter backwash cycle and is subsequently discharged?

RESPONSE:

Based on Company calculations, 11,240 gallons of water is used per backwash cycle. The calculation is contained on Attachment WMA-SIR-107a.

g. Is the discharged water accumulated in a holding tank, reservoir, clarifier or settling pond for subsequent treatment and/or reuse?

RESPONSE:

The discharge water is drained in to a settling pond and then the discharge water is spread over the ground.

SPONSOR:

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WMA-SIR-119

Re: Response to WMA-IR-902

Please provide copies of all billings to the County of Maui for each

meter serving beach access points. County parks and other

facilities during the period from 2004 through the present.

RESPONSE:

The Company does not have monthly billing data for each customer

readily available. As described in response to several information

requests, the Company has only a monthly billing record of

approximately 60 pages and would have to review each monthly

billing record to determine the monthly usage for each customer

which would be unduly burdensome. The Company is willing to

allow WMA to review these monthly billing records at the

Company's office under the appropriate confidentiality agreement

to list the monthly usage for each customer.

SPONSOR:

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WMA-SIR-120 Re: Response to WMA-IR-903

a. Please identify the exact date when operation and maintenance of MPL's Mountain Water System were transferred to WOM. Describe the extent of operation/maintenance activities, if any, reserved to MPL and not transferred, assigned or delegated to WOM. Explain the reason for the changes in day to day management.

RESPONSE:

The Company objects to this SIR because it is outside of the scope of this proceeding. None of these operations are part of MPU and do not have any impact on the rate base, revenue or expenses of MPU.

b. Please provide copies of all notifications, correspondence, public announcements and similar written documents pertaining to the changes in WOM's service territory, customer base, rate schedule, etc., resulting from the effective acquisition of MPL's Mountain Water System.

RESPONSE:

The Company objects to this SIR because it is outside of the scope of this proceeding. None of these operations are part of MPU and do not have any impact on the rate base, revenue or expenses of MPU.

c. Provide a complete accounting of revenues, deposits and fees collected since the changes were implemented as well

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WMA-SIR-120 (cont.)

as the book value of each and every asset effectively transferred to WOM's physical plant and facilities.

RESPONSE:

The Company objects to this SIR because it is outside of the scope of this proceeding. None of these operations are part of MPU and do not have any impact on the rate base, revenue or expenses of MPU.

d. Please identify the exact date when operation and maintenance of the Kualapuu and Maunaloa Wastewater Systems were transferred to MOSCO. Describe the extent of operation/maintenance activities, if any retained by MPL and not transferred, assigned or delegated to MOSCO. Explain the reasons for the changes in day to day management of the two wastewater systems.

RESPONSE:

The Company objects to this SIR because it is outside of the scope of this proceeding. None of these operations are part of MPU and do not have any impact on the rate base, revenue or expenses of MPU.

e. Pease provide copies of all notifications, correspondence, public announcements and similar written documents pertaining to the changes in MOSCO's service territory,

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WMA-SIR-120 (cont.)

customer base, rate schedule, etc., resulting from the effective acquisition of these two wastewater systems.

RESPONSE:

The Company objects to this SIR because it is outside of the scope of this proceeding. None of these operations are part of MPU and do not have any impact on the rate base, revenue or expenses of MPU.

f. Provide a complete accounting of the revenues, deposits, and fees collected since the changes were implemented as well as the book value of every asset effectively transferred to MOSCO's physical plant and facilities.

RESPONSE:

The Company objects to this SIR because it is outside of the scope of this proceeding. None of these operations are part of MPU and do not have any impact on the rate base, revenue or expenses of MPU.

SPONSOR:

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WMA-SIR-121 Re: Response to WMA-IR-119

Please confirm that the water deliveries to the Manawainui

Reservoir, as shown on the reports entitled "Molokai Properties

Intercompany Water Sales" is potable water.

RESPONSE: It is confirmed that those deliveries are potable water.

New Part (a) Please describe the water sales listed as "Book 9 Industrial Ag" in

the reports entitled "Molokai Properties Intercompany Water

Sales". Potable or non-potable? What areas served? Please

provide a customer list and total number of billings per month.

RESPONSE: The water sales to customers included in Book 9 Industrial Ag are

sales made by WOM and are not connected with MPU operations.

As such the information requested is outside the scope of Docket

No. 2009-0048 and is not being provided.

SPONSOR: Robert O'Brien

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WMA-SIR-122 Re: Response to WMA-IR-301

Please identify the type of pipe originally installed as water mains

throughout the Kaluakoi service area. Ductile iron, asbestos

concrete, PVC, or some other materials? Please provide

specifications for said water mains including pressure ratings.

RESPONSE: All of the water main pipe is ductile iron. The size of the pipe

ranges between 6 inches and 24 inches in diameter. The Company

does not have pressure ratings for that pipe.

SPONSOR: Robert O'Brien

CERTIFICATE OF SERVICE

I (we) hereby certify that copies of the foregoing document were duly served on the following parties, by having said copies delivered as set forth below:

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